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A PICTURE OF THE BATTLE OF LEPANTO

[PLATE I.]

A VERY interesting symbolic picture of the battle of Lepanto executed in a miniature style has recently reached this country from Athens, and the owner, Sir Arthur Evans, has kindly allowed me to publish a reproduction and description of it.

The picture measures .373 m. in height by .275 m. in width, and is executed with a full range of colours on a sheet of vellum which has been at some time sharply folded across about half-way up the picture. Above and below and on the back there are inscriptions in Greek, but before we come to them it will be convenient to give some description of the picture itself. This is divided horizontally into two parts: above we see the saints and angels looking down upon the battle; below is the battle itself, and immediately above the centre of the fray, where the two fleets, Christian and Turkish, are in conflict, is a small medallion containing a throned figure of Christ.

The background to the upper half of the picture is of gold. On this, forming an upper register, is a row of saints, standing upon a bank of clouds. Beginning from the left these are: (1) St. Spyridon (ὁ ἅγιος Σπυρίδων); (2) St. Justina (ἡ ἁγία 'Ιουστίνη); (3) the Virgin seated with the Child in her arms; (4) St. Pelagia (ἡ ἁγία Πελαγία); (5) St. Eleutherios (ὁ ἅγιος 'Ελευθέριος). The reason for the presence of St. Spyridon is explained by the inscription on the back of the sheet: it is he who saved the dedicator of the picture in the battle. St. Eleutherios is there because Lepanto was the battle which was to give freedom to the Christians. The figure of the Virgin in the middle is supported by five cherubs. She is inscribed as usual with the letters ΜΡΘΥ, *Mother of God*, and on the left of the spectator by her halo are the words ἡ Θεοτόκος Ἐκτίς, *Mother of God, Help (of Christians)*. The Child is marked by ΙΧC, *Jesus Christ*; on His halo are the usual words ὁ ὢν, *He who Is*, and He holds in His extended left hand a branch as a sign of victory.

Below the cloud upon which these saints are standing is a second bank of cloud, also stretching across the picture; from the upper edge of this emerge three angels with weapons, heavenly champions of the Christian fleet. The angel on the left wears a red dress with kilts, of the Roman soldier type common on church icons, and carries a lance. The middle angel has a similar dress, but of gold, and over it floats a red mantle; he carries a sword. The angel on the right wears a flowing robe and brandishes a sword. All three have black or dusky wings.

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R. M. DAWKINS

Below the clouds is the picture of the sea-fight. A strip of blue sky reaches down to the sky-line, which is broken in the middle by a medallion. This contains a seated figure of Christ in a long robe, with His hands extended in blessing coming out from below a cloak. On the sky on the two sides of the medallion are the words in gold: *The King of Kings and great High Priest* (ὁ βασιλεὺς τῶν βασιλευδόντων καὶ μέγας ἀρχιερεὺς). Below the sky-line the whole space is filled by the sea, crowded with the ships of the two fleets. On the spectator's left is the Turkish fleet; on his right the Christian, so that the medallion with the figure of Christ is immediately above the central line of the battle where the two fleets come into collision. The hulls of the galleys are black, or black and red in stripes; the sails white; the oars are black; on the sterns of the ships are great pavilions. The white puffs of smoke between the ships show that battle has been joined. The flags are for the most part red; the Venetian are marked by a lion in gold, the Turkish by a crescent. High up on the left of the picture are three green flags with a crescent on each.

On the back of the picture is an inscription in minuscule in eleven lines, which can only be partly read. As far as can be made out the translation runs:—

The Battle of Lepanto in which the Venetians destroyed the fleet of the Hagarenes (i.e. the Turks) and ... was blockaded, and St. Spyridon of Kerkyra saved him. Then his wife, Mary (?), is mentioned, and then the monk and icon-painter of the monastery of St. Athanasios. In the last two lines it is only possible to guess at the words he esteemed it, or his, value, and the whole is signed Lawrence Monk and Priest.

On the picture itself we have one-line inscriptions in capitals above and below the picture itself. Above we have:—καὶ διὰ τοῦτο λέγει ὁ σοφώτατος βασιλεὺς ὅτι τὰ κουρβούλια ξεριζῶναι ἦτοι τὸ χωρίζειν μητέρ-, and below, —ας ἀπὸ τέκνα ὁ σκληρὸς θάνατος τοῦ πολέμου χεὶρ Λαυρεντίου μοναχοῦ σφ . . . , which means, although the words bear no clear grammatical construction: *And for this reason the most wise king says that to root out the vine-stocks, that is to separate mothers from children, . . . the cruel death in war. The hand of Lawrence the Monk, 15. .* The final letters must be the date, and the date of Lepanto is 1571; for all that the letter after the φ seems almost certainly to be a Λ and not an Ο.

From this we may infer that Lawrence, an ordained monk (λεπομόναχος) at some monastery of St. Athanasios, painted this picture of the battle of Lepanto at the request of a man who attributed his escape from death in the fight to the good offices of St. Spyridon, the great saint of Corfu. His wife Mary seems to have joined with him in the pious work.

The picture is notable as being of a very unusual character, painted with great skill, and, though slightly rubbed and creased, yet in a good state of preservation. Whatever originality there may be in the composition and arrangement of the whole, it is plain that the several parts of the picture belong very much to the traditional stock-in-trade of the icon-painter. The five saints at the top show no signs of composition as a single group; rather they

seem to be taken from separate icons, except that the pair on the right probably belong together. The three angels and the medallion of Christ also are of conventional type. The picture of the battle itself makes us think rather of Italy than of Greece; this and the prominence of St. Spyridon of Corfu suggest that the work is a product of the Ionian islands. Though the design is thus made up of a patchwork of derived elements, the picture has considerable charm, due in the main to the elegance of the workmanship and the very decided beauty of the colouring, at once rich and delicate. It is a pity that the inscription on the back is not more legible: in many parts the ink has entirely disappeared. If we could read it completely, it is possible, though not, I think, very likely, that we might be able to place the origin of the picture with more precision.

R. M. DAWKINS.

THE WEST PEDIMENT OF THE PARTHENON

'No artist will ever surpass Phedias: progress may exist in the world, but it is not so in Art. The greatest of all sculptors will remain for ever without an equal' (Rodin).

It is agreed that the sculptures of the Western pediment represented, at the centre, the Contest of Athena and Poseidon; that this central action was terminated by two chariot groups, one on the left, the other on the right; and that beyond these were spectators. Further, it is generally accepted that a pair of figures of an old man and a maiden on the left of the central action were meant for Cecrops and one of his daughters. Immediately to the left of Cecrops, between him and the first figure in the angle of the pediment, Nointel's drawing showed a void space, and in a nearly corresponding position in the

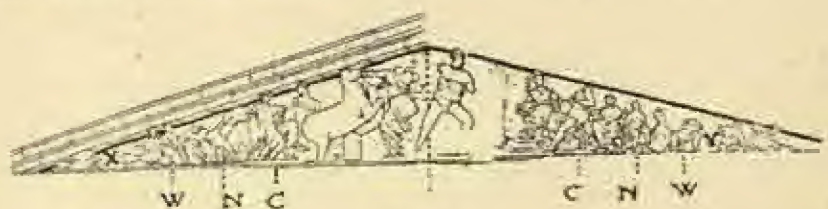


FIG. 1.

other half of the pediment the same old drawing recorded another gap (X and Y in Fig. 1). It had been supposed by many students that both spaces might have been left void intentionally; Leake and others thought that one or both would have been filled. In considering this question it should be remembered that the figures were not placed on the cornice like objects on a shelf: they were adjusted at slight angles and so that parts of one overlapped its neighbour. That there was no gap on the left has been recently proved by the finding of a figure which filled the space. This figure was male, as Leake supposed would be the case. Furtwängler pointed out that the gap on the right-hand side of the pediment corresponded in position with the position of Cecrops on the other side, and further, that a female figure inclined towards this void space as the female figure on the left does towards Cecrops. He therefore was led to suggest that the right-hand gap was occupied by a figure of Erechtheus. He went on to interpret the groups of 'spectators' on the left and right of the central action, as being the primitive kings, Cecrops and Erechtheus, with their families, mostly daughters, from whom the early rulers descended. Two of

the daughters, frightened by the great happening, rush to their fathers for protection.

When I first studied the question (1908) I tried to examine it from the point of view of the material evidence and I came to the conclusion that general rules of symmetry in pedimental composition were sufficient to show that both the gaps must have been filled, and that the lost figure on the right would have been similar in type to the figure of Cecrops on the left. As Furtwängler said, 'What we must assume here is a group of two closely united figures.'

The asymmetry of the composition may be brought out in several ways. In the diagram (Fig. 1) C and C were the charioteers of similar great groups; N and N were nude figures, one in either half of the pediment, the shining forms of which—set against draped figures—would have been specially noticeable; W and W are the two female figures inclined away from the centre, of whom we know that one clung in fright to an old man (Fig. 2).

Important British contributions to the interpretation of the pediment were made by Leake and others. Leake in 1841 pointed out that in a late



FIG. 2.

version of the story of the rivalry of the two gods: 'not only Cecrops but his successors, Cranaos and Erechtheus, were also present—in or after the reign of which last monarch we must suppose the contest to have occurred. Pheidias followed the latter version.' Leake filled both the gaps with figures, making that at X male, and he named the first three figures Cranaos, Amphictyon and Cecrops, while the attendant on the chariot of Athena (now Hermes) was Erechtheus.

J. Woods, the editor of Stuart and Revett's *Antiquities of Athens*, Vol. IV, identified, some time before 1816, the fine torso now known as Iris with the figure shown on the Neintel drawing running by Poseidon's chariot. It was later claimed by Visconti for the E. pediment and the mistake was maintained for nearly a century (see *Sculptures of the Parthenon*, 1910).

Corbould, the able draughtsman employed by the Museum for the publication of the marbles, seems to have been the first to perceive (before 1830) the crucial fact that balance in the composition of the Groups necessitated that there should have been a chariot and horses on the right as on the left of the centre. In a lecture at the Royal Academy in 1831, Westmacott, the sculptor, said—speaking of Athena's chariot on the left—'This group was evidently balanced by the Chariot of Neptune, for it is not possible to account for so

great a space in the composition without it; and Mr. Corbould, who has examined Carrey's drawings with the greatest attention, finds it supported by the two figures which next appear—Amphitrite the wife of Neptune (under whose feet was a dolphin); she was accompanied by Leucothea or Halia.* The second chariot was adopted by Cockerell in his admirably drawn restoration and text, but while calling the charioteer Amphitrite, he cautiously refrained from naming her companion. Cockerell or Corbould seems also to have identified the existing torso of the charioteer of Poseidon ('Amphitrite') which Visconti had assigned to the chariot of Athena.

R. C. Lucas, who made the excellent model of the temple now in the Elgin Gallery, carefully worked over the evidence and published his findings in a little book in 1845. He assumed that there must have been sculptures in both the gaps, and definitely pointed out that on the right, at Y, 'there is a space where the sculpture has been removed.' 'We perceive the great principle in the design of Pheidias—namely, variety and contrast in unity . . . the groups accurately balanced and symmetrically arranged, all the principles of pedimental sculpture observed, but by the genius of Pheidias made compatible with the utmost variety.' He also made some restorations of individual figures, including an excellent one of the reclining male in the left angle. (Is he the author of a small model of this figure in the Soane Museum?) Another was the Poseidon, to which he properly, as I think, gave some fluttering drapery at the back. In his model of the temple he restored the pedimental figures after the Nöntel drawing, modelling them in wax (he was the author of the wax bust at Berlin) with great delicacy and sympathy. A photograph of the left-hand half would be the best point of departure in describing these sculptures. He brings out their fullness, how they projected in front of the cornice, and the contrast of the nude youth in front of the draped figures is well indicated. A photograph of this would really suggest how the pediment looked.

In his etchings of fragments from the W. pediment he included a piece of the right leg of a female figure which has since been identified (by Watkins Lloyd, I believe) as having been a part of the 'Iris,' then held to have belonged to the E. pediment, but now transferred to the West. He mentions the description in 'the French Archaeological Journal' of a 'head stated to have been that of Victory in the Western pediment [the charioteer of Athena], brought to Venice by an officer who served under Morosini. It ornamented some garden edifice for the last century, and is now an object to obtain for the various museums in Europe.' This is the 'Laborde head,' and notwithstanding other suggested positions, the W. pediment seems to have the best claim.¹

Watkins Lloyd fitted a fragment of a serpentine coil to the mass on which Cecrops is seated, and thus opened the way to the certain identification of the figure. This fact and the discovery of the male figure which occupied the left-hand gap next to Cecrops strengthens Leake's theory, that the first three figures, all males, were primitive rulers of Athens. Perhaps the names Pandion

¹ See also the restoration of 'the Fates' as etched by Lucas: the arrangement of the arms shows consideration of technical

requirements, but the right arm of the middle figure should be as I sketched in 1908 (*Greek Buildings*).

and Butes might seem from some points of view to have better claims than Cranaos and Amphictyon, but the principle of interpretation is the same.²

Miss Jane Harrison in 1890 published an admirably independent examination of the current theories of explanation. With the exception that a minimum of 'topographical symbolism' was still retained, what she said agrees remarkably well with the solution Furtwängler reached about a dozen years later. She made out a strong case for interpreting the nude figure on the right (Fig. 1, N) as 'undoubtedly male.' She vigorously objected to the view that the spectators were opposing parties; this would have been unorthodox and shocking.

More than twenty years ago I showed, or at least suggested, that what had been described since Watkiss Lloyd's time as a serpent 'associated' with Cecrops was, in fact, a serpentine tail issuing from his body, and that this makes the identification secure (*Greek Buildings*, 1908: with a restoration; cf. Fig. 3).

If a complete serpent with a head was represented, then the figure with whom it was grouped might reasonably be called Asklepios as by Michaelis. If the serpent is not attached to the body there is no absolutely certain point of departure for the identification of the whole assembly of spectators. However, the identification of Cecrops is now more and more taken for granted, as it was by Leake and Furtwängler. For additional confirmation that a serpentine tail was represented, notice that the leg of Cecrops resting on the ground so closely circumscribes it on the further side that it is impossible to imagine that any extension was thought of. The leg, in fact, presses against the root of the tail in the most 'natural' way.

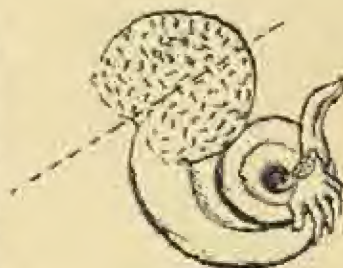


FIG. 3

Confirmation of the Leake-Furtwängler interpretation of the meaning of the side groups as human witnesses of supernatural events may be found in many examples of Greek art. A usual method of composition in vase paintings was to represent the principal action in the centre, and balanced groups of secondary characters on either side. Frequently, when the subject is a violent and dramatic deed, the witnesses are frightened and run away.

One example of this treatment is the celebrated Athenian vase painting by Moidias in the British Museum. In the middle, Castor and Pollux are carrying off the daughters of Leucippus, while other startled maidens run away on either side. One of these seeks the protection of an aged person seated at the left extremity of the picture, who in this case seems to be Zeus, the father of the assailants rather than of the maidens. The great sculptured acroterion of Delos represents Boreas carrying off Oreithyia, while affrighted sisters start

² Furtwängler suggested that the figures wife; those to the left were Bouzyges and wife. In the right-hand angle were Butes and his wife.

away right and left. A fine red-figured vase painting in the Victoria and Albert Museum treats the same subject in a more detailed way. Here Boreas pursues Oreithyia in the centre and her sisters scatter in both directions. The one furthest to the right seeks the protection of an old white-haired man, seated and having a long staff or sceptre, who can be no other than Erechtheus. A still more instructive example in regard to the scheme of the Parthenon sculptures is the representation of the same scene on a famous vase at Munich. On this the sisters of Oreithyia run to seek the protection of aged men holding sceptres, who are named by inscriptions Cecrops and Erechtheus. Miss Jane Harrison says of these: 'Cecrops, although according to orthodox genealogy dead generations ago, is present here out of compliment and sympathy, just as Erechtheus is present at the birth of Erichthonios. Could anything be more clearly Attic, more blatantly autochthonous?' 'Clearly Attic,' that is what the sculptures of the pediment also had to be. This vase is of early fifth-



FIG. 4.

century fabric, and thus earlier than the Parthenon. The same subject similarly treated is on a vase also figured by Reinach (I. 305). Cecrops and Erechtheus appear together as spectators of scenes sacred to Athens in other works of art. A beautiful vase painting at Berlin picturing the birth of Erichthonios has Cecrops and Erechtheus, one on either hand, as witnesses. Another red-figured vase in the British Museum depicts even the birth of Athena with 'a simple citizen spectator' at the ends of the composition. These are aged men, one of whom is white-haired; there can be no doubt that they stand for primitive dwellers in Athens and were, in fact, Cecrops and Erechtheus. Further, it would appear that, in

some accounts of the event, Athena must have been said to have been born at Athens itself.

The presence of the two Athenian patriarchs was evidently quite a customary formula in art, indicating that the 'matter' was a story of ancient Athens. The frightened maidens motive usually indicated the daughters of Cecrops and Erechtheus. So it would have been at the Parthenon. A slight sketch restoring the remnant of the female figure next to the gap on the right (W. Fig. 1) shown in the old drawing, is given in Fig. 4. It is remarkable that the figure to which she must have clung, which presumably was cut in the same block, should have been broken away and thrown down, but Dalton's drawing of the W. front shows that heavy covering stones of the pediment had fallen from above this position. A drawing by Pars shows that in the left side of the pediment the half of a single figure had been broken away, leaving the rest in place.

Altogether it is quite evident that, as Furtwängler has said, 'the artists of this period regarded Cecrops and Erechtheus as contemporaries; both of whom were alike interested witnesses of the first act of the gods on Attic soil.'

A famous vase of the Hermitage Museum³ depicts the contest of Athena and Poseidon in such a manner that it is generally agreed that it must have been directly imitated from, or inspired by, the pediment of the Parthenon itself. Here on the right of the central action is a maiden who runs towards an aged man holding a sceptre and resting on a rock. This, again, it would seem, must be Erechtheus seated on the Acropolis. Over him, that is behind, is a building which has figures as acroteria. It has been supposed that this building may have been intended for the Parthenon itself, but it was the older temple which had such figures at the angles of the pediments. The building in the painting probably was intended to represent the most ancient sanctuary on the Acropolis—the House of Erechtheus—and to make it look ancient a feature was borrowed from the oldest existing or remembered building. The Hecatompedon had such acroteria. Fig. 5 is sketched from an archaic vase in the British Museum. Miss Harrison, writing of the Erechtheum, not of the vase, says: 'The good house of Erechtheus had long since perished, but its memory no doubt remained. The Erechtheion will be better apprehended if it be considered a house, as well as, if not instead of, temple.'



FIG. 5.

On the left of the centre in the same painting are also two figures. One is a handsome youth in a hunting attitude with a leopard by his side. He looks like a young Dionysos, but must, I think, be—or have been in an earlier version—Cephalos. Above him (behind) is a reclining maiden who has long—as I mentioned in 1908—reminded me of the sculptured figure in the right-hand angle of the pediment. This I believe must be Procris. All the side figures on the vase were probably inspired by the sculptures of the pediment. In the vase painting Poseidon holds a horse with his left hand while he strikes his spear with the right. It has been said that this must represent a different version of the story, but to me it is more probable that the single horse was a result of condensing the great series of sculptures into a little picture. The horse seems to have chariot harness on it. It is interesting to observe that Cockerell in his restoration of the chariot group makes Poseidon grasp at the reins with his left hand, just as he does in the vase painting. (The suggestions which Reinach makes for the identification of the side figures on the vase are Aphrodite and Dionysos on the left, Amphitrite and Cecrops or Zeus on the right.)

Many years ago I made the suggestion in the *Burlington Magazine* (as also in *The Builder*, 1927) that the youth and maiden in the right-hand angle of the

³ Harrison, *Myth. and Mon. of Anc. Athens*, p. 442, fig. 44.

West pediment must be Cephalos and Procris. These were probably the most popular persons of Athenian story. Leake and Furtwängler had both felt that Cephalos would have been among the sculptures, but they assigned his name to figures that are now otherwise identified. Furtwängler put him in the Eastern pediment. The vase paintings and sculpture when compared together give strong evidence that Procris and Cephalos would form part of a group in which Erechtheus was the chief personage.

The sculptured figure in the pediment which I would identify as Cephalos is a youth, and he and the maiden next to him were intimately conversing. Further, he was getting up from where he had been resting, and this action would be peculiarly suitable for Cephalos, who rose at dawn to go hunting. The figure has been described as crouching on his heels, but this is a mistake; the right leg was in the position suggested, but the left thigh was thrown up so as to be free below, and the foot must have been brought forward while the left hand pressed the ground. I have a note of a Cephalos-like figure in a vase painting of 'Polygnotan style' in a similar attitude, but have lost the reference.

The general idea of the composition, the appearance of Athena on the Acropolis, between two symmetrically placed groups of spectators, was taken over from the old Hecatompedon, where it is probable, from all that has been said, that two spectators were no other than Cecrops and Erechtheus. The Western pediment held two sea monsters, a Triton and Typhon, the Eastern held two land snakes of even greater magnificence. The design as restored is as follows. In the apex is Athena; to her right hand is a figure crowned, a king or god; the figure which balanced him to the left of the goddess is lost. The surviving [side] figure is usually called Zeus, but from his subordinate place it seems more likely he is Poseidon or a local king Erechtheus. . . . The great snakes who in the angles keep watch are often described as "decorative," but surely they are too dominant to be accessories. One is blue and orange, and his companion in the other angle is vivid emerald-green. Herodotus speaks of one snake as guardian of the Acropolis; good Attic tradition knew of two.

Athena bound, for watch, two guardian snakes (Euripides).

We need not say that the two snakes of the pediment are a duplicated Cecrops, but we may say that they are two hero snakes, guardians of the city' (Miss Jane Harrison, *Primitive Athens*, 1906).

On several archaic black-figured Athenian vases, buildings are represented with their pediments filled with two giant serpents; these were evidently reflections from the old temple. Fig. 6 is sketched from a vase in the British Museum.

The supposition that the spectators were imagined as having been awakened at Dawn by the sudden apparition of the gods has recently been confirmed to my mind very convincingly by the observation that I 'get up' with actions like those of the reclining figure on the left (A, or 'Cranaos'). With his right hand he throws off the covering, then gathers up his legs and turns over on his left

side, raising himself on his arm. It amuses me now to be 'Craneos' in the morning and to know that Pheidias himself got up like that.

The movement of the figure was well described by Visconti. 'This personage, half reclined, seems by a sudden movement to raise himself with impetuosity. . . . The momentary attitude, which this motion occasions, is one of the boldest and most difficult to be expressed that can possibly be imagined. He is represented at the instant when the whole weight of the body is going to be supported by the left hand and arm, which press strongly on the earth, on which his left foot also rests. This motion causes the whole figure to appear animated.'

This up-starting figure had been named 'the Ilissos' in 1812 because a late story calls reclining figures, in the angles of one of the pediments at Olympia, by the names of rivers. This name was adopted by Visconti, and subsequent commentators have seen something water-like in the drapery of the figure. It is rather inflated by air.

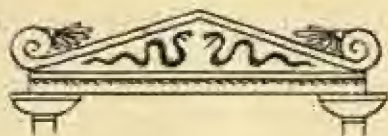


FIG. 6.



FIG. 7.

The reclining maiden ('Procris') in the opposite angle of the pediment also swiftly turns about, and resting on her right arm seems to ask 'What is it?' These figures not only suggest motion but commotion. The cause of waking was a startling blast of wind, proceeding from Poseidon's breath. Many years ago, when drawing the Cecrops group, I noticed that the drapery over his daughter's left shoulder had been entirely undercut free from the body, and further that her whole drapery was represented as blown by a wind. Associating this with the 'wind-troubled' garments of 'Oreithyia,' so well described by Furtwängler, I was led on to see that the action of wind might be traced throughout the pediment—'a gust of wind seems to sweep through the composition from the centre of action' (*Greek Buildings*, 1908). The chariot horses are not only restive, they are *frightened*. A groom or runner accompanying each team rushes forward to hold them. The charioteers hurriedly alight. Comparison of their action with other representations, and consideration of the necessities of support for the heavy masses of marble, make this last interpretation certain (Fig. 7). Enough of the figure of Poseidon's charioteer remains to show that one foot was raised much higher than the other. What was represented was a sudden dramatic action: all the unities were observed.

The interpretation of the 'plot' of the sculptures as here set out, following

the observations of Leake and Furtwängler, would have been instantly intelligible; all was a unity of cause and effect, simple and dramatic. The pediment sculpture was no isolated scene, 'an easel picture,' chosen as a decorative subject. It was part of a great epic story of the foundation of Athens and the divine charter given in the sight of the Fathers of the people. The whole idea was very deep and ancient; Cecrops and Erichtheus were the special guardians of the Acropolis and the representatives of more primitive serpent watchers. The spectators were a chorus to the action. The Pheidian composition carried forward in a modernised way these ancient traditions.

Here I should like to quote a remark from a MS. letter by that able critic, Watkiss Lloyd, in the Library of the Hellenic Society. Speaking of Greek monumental sculpture he says: 'We always find a most pertinent relation of each part of the monument to the others. Each is a member of a sentence in marble of which the pediment usually presents the nominative case and verb,

the frieze the accusative, while the subordinate decorations come in to shape the proposition as adverbs and adjectives, and occasionally constitute parenthetical clauses.' The Parthenon was the Bible of Athens.



FIG. 8.

The figure and costume of Athena in the Pediment have long reminded me very definitely of the statue at Dresden which Furtwängler identified as a copy of the Lemnian Athena by Pheidias. The general resemblance of these two figures, and the remarkable likeness of the head, which he associated with the same Dresden statue, to the girlish head of Athena on the frieze of the Parthenon, have fully convinced me that the Dresden statue was indeed a copy of a Pheidian work. The pedi-

mental figure resembles the Lemnian so closely in pose and costume that one seems almost a reversed version of the other. Both have an arm thrown up, exposing the armpit in a similar way to the arm of a third figure—the 'Demeter' of the E. pediment (see other figures also). Dalton's sketch of the broken pedimental figure lying on the ground in his view of the temple indicates a fullness in the drapery under the arms which is found again in the Lemnian and the Parthenon. The upper parts of the bodies of the pedimental figure and the Lemnian, in each case covered by an aegis worn diagonally, are so alike that the Elgin fragment in the Museum may be restored by comparison with the other. (I sketched such a restoration in the *Burlington Magazine* about fifteen years ago and again in *The Builder*, 1927.) The Athena of the pediment had something of the wonderful freshness of the Lemnian, a freshness which seems to have been a special grace with which Pheidias could endow his creations.

From the large portion of the head of Athena which is preserved a trustworthy restoration may be made. The head of Poseidon has so much of

Pheidias character in the Nointel drawing that it may be depended on for accuracy. I have enlarged and restored it in the sketch, Fig. 8. If the Nointel drawing of the upper part of the body were enlarged photographically some six or eight times and carefully corrected from the existing torso, while the head was restored by an able artist, some better notion of this mighty figure might be recovered.

The figures of Athena and Poseidon represented on the Hermitage vase are so very like the pair of figures on the pediment as made known to us by the closest study, that it seems that the group must have been actually copied; even the head of Poseidon on the vase is so like the head in the Nointel drawing that they confirm each other. In the vase painting and in other representations of the scene Poseidon has a cloak. Now at the back of the marble on the left shoulder is a large rough surface which can hardly be any other than the attachment of such a garment—as Lucas must have perceived. In Fig. 9 I have made a variation in the disposition of it, as the suggestion of Lucas appears to me to be too similar to the drapery of the next figure (Iris, Fig. 10). On the shoulder is a bronze pin which may have fastened a metal neckband. The manner in which projecting and delicate parts of the sculptures were compacted together by 'webs' of drapery may be traced throughout.

More than twenty years ago I noticed that the raised right hand of the middle 'Fate' must have held a piece of drapery above the shoulder. The Nointel drawing of the W. pediment indicates the constructive use of drapery in the sculpture very clearly in respect to the charioteer of Athena and the running figure of Iris. At the back of this latter figure the broken attachment of drapery may be observed: compare it with the mantle of the running figure in the E. pediment. From the old drawing it may be seen that this drapery was a long scarf which passed from arm to arm. In the Museum is a fragment of a delicate arm with drapery of the kind attached (331), which may, it is said, have belonged to this figure.⁴ In any case we have material for an almost complete restoration. Hermes had his left arm supported in the same manner, although not to so extreme a degree, as is well known in the Apollo Belvidere. Cecrops' daughter also had her left arm strengthened by thin drapery.

The way in which the sculptured figures retain evidence, in their poses and the adjustments of projecting parts, of the simple quarry blocks from which they were hewn should also be noticed. The necessity for compactness will often suggest how a lost part must have been disposed. Figs. 9 and 10 are small restorations of the figures of Poseidon and Iris based on the photographic illustrations. In Fig. 7 I have made a very slight sketch in which one of the charioteers is considered in a similar way. Some details, such as the wings of Iris, were in separate pieces, joggled into the main masses, but this method was sparingly used.

The marble blocks out of which the sculptures were cut are, in the case of the taller figures, set up on end and not according to the strata in the quarry. Hence many fractures are almost vertical; the face of Athena, for instance, and

⁴ I wonder if Cecrops' daughter has been tested for this.

the fragment of a seated figure, 339.7. From this fact we can more readily understand the breaking away of the presumed figure of Erechthion if it was originally in the same block with its neighbour.

The known liberal use of bronze additions to the frieze reliefs, and several fixing holes on the pediment figures, suggest that bronze details would have been profusely added to the great sculptures. The spears of Athena and Poseidon, and the sceptres of the watching kings, would have been of gilded metal. The long lines of these must have had great importance in the composition. It has been said that the chariots of the two gods could not have had wheels, but I have little doubt that they were added in bronze. A chariot in one of the eastern metopes has a hole for the attachment of a bronze wheel. The reins and bits of the horses would have been bronze. On the breast of Athena exists the trace of a bronze disc which bore the Medusa head in bronze. On



FIG. 9.



FIG. 10.

her aegis are also holes to which little writhing serpents were fixed; on her neck are other holes which attached the back rim of her helmet, and she had earrings.

The head of Cecrops had many little holes around the crown—too many, I think, for fixing a wreath only—and I would suggest that he might have had long locks of hair as well (Fig. 2). The head of his frightened daughter also had holes for attaching a wreath. If these two figures, close together, had wreaths, other corresponding figures must have had them also. The Laborde head has holes for the attachment of a wreath. The charioteer 'Amphitrite' has evidence of bronze accessories. So many details added in bronze must have greatly enriched the marble sculpture, and we have further to imagine the effect of gilding on these parts.

The flesh surfaces of 'Cranios,' 'Hermes' (the back of the right shoulder) and notably the Helios of the Eastern front, still retain so much evidence of actual polishing that it seems certain that the nude parts were so highly finished that they glittered. That such surface polishing was a general tradition

in marble sculpture is confirmed by so many other works, of which several are in the Museum, that it may not be doubted. The figures were also touched with colour and the draperies more extensively painted, as is now generally accepted. In 1912 I observed traces of the painted iris of the left eye of the horse of Selene in the E. pediment, the painting has preserved the surface to some degree, so that in a good light the circle may be seen.

The fragment 339.7 mentioned above was hardly more than a large vertical splinter from the right side of a figure. It has been suggested that the particular figure may have been either 'D' or 'U.' Now when we remember that Pars in his drawing of the Cecrops group shows a thin slice of such an adjoining female figure, we may hardly doubt that the fragment 339.7 is part of figure D. As is well known, Dalton in his view of the W. front puts an altogether unexplained nude figure here which must have been drawn in to make the broken surface look more interesting. I made a slight restoration of this figure in 1908 (*Greek Buildings*). A fine marble fragment of the right thigh of a draped female figure in the Museum, 304 T, is valuable in showing that the figure 'T,' although seated low, was not in the curious reclining attitude given to it in the Nointel drawing: Dalton represents it better. It shows further that the nude figure associated with it was not full seated on her lap, but rather half seated on her left side. The fragment is from a magnificent mature figure comparable to one of the 'Fates.' If a photograph of this were shown with a few added lines indicating how the body and feet must have been in relation to it, our understanding of it might be largely increased. The fragment 330 of the 'colossal right arm of female figure may perhaps have belonged to figure G of the West pediment.' If the Laborde head also belonged to this figure we might feel that we know something about it. I wonder if this head has been tried on the Amphitrite torso to see if it looks suitable for a corresponding figure.

A German scholar has made a skilful restoration of the great acroterion from small existing fragments (*B.M. Sculptures of the Parthenon*). Among the engraved plates which Vulliamy published from sketches made in Greece (c. 1820) is one of 'a tile found at Athens: from only one perfect example.' This small antefix, of which I give a slight sketch in Fig. 11, must have been comparatively small, yet it is so like the restored acroteria that it is good evidence of the general correctness of the result.

From an inscription relating to the building it is known that the works were begun in 447, the temple was consecrated in 438, when the gold and ivory image was set up, and the whole work seems to have been completed in 432. From the slight data several scholars have set out schemes of the order in which the sculptures were executed. Michaelis says: 'The metopes were executed in the 'forties, the frieze in the beginning of the 'thirties, while the pediment groups were presumably executed after the death of Pheidias, or after he left Athens in 438, by his pupils, this may be looked upon as almost certain' (*Discoveries*, 1908). Professor Hans Schrader excludes Pheidias almost entirely from the design and execution of the sculptures. Lechat, on the other hand,

concludes (1924) that the Eastern pediment and the frieze would have been done before 438, when the temple was dedicated. And Johansen (1925) argues that Pheidias probably remained at Athens until 432. 'In the fourteenth year the building accounts show that more than half that year's budget was swallowed up by the pediment groups; it took so long to complete them.'

The beginning of such a vast work must have been many years before even a partial 'completion.' Looking at the questions in a general way from a practical point of view, it may, I think, be asserted as obvious that the master sculptor must have begun to 'design' the pediments in the evening of the very day when the new temple was first mentioned to him; the artist's mind ranges all over the important points of a great work from the beginning. A search for the large and most perfect marble blocks required for the great sculptures would have been undertaken from the first days of quarrying. The frieze, owing to the fact that the continuous design passes over the jointing of



FIG. II.

the slabs, had to be wrought in place, and it is probable, therefore, that it was the latest of all the works of sculpture to be undertaken. This view of the period of the frieze is confirmed by other considerations. There is such a close correspondence between the gods of the Eastern frieze and those of the pediment above it that it may not be doubted that the great sculptures existed, at least as models, before the frieze was done. It is further probable that the frieze was not carved until the roof was covered in, so that it might be wrought under the same conditions of lighting as it would have to be seen by. Every builder would, I think, be likely to agree that the frieze was a complet-

ing piece of work. The great sculptures, however, must have gone forward concurrently with the building, or the sculptors were unoccupied.

When these very heavy sculptures were wrought they had to be hoisted up to their place on the cornices. This was a task of immense difficulty and danger—one of primary importance which would have been thought out from the beginning. (1) The sculptures were advanced so that the scaffold used in building each gable served also for putting them in place as soon as the structure was ready; (2) or the scaffolding was maintained in position for a long time; (3) or it was taken down and a new scaffold was afterwards erected for raising the sculptures. It seems most probable, I may say, that the sculptures would have been put in position in a partially completed state; it is almost impossible to suppose that fragile jutting parts would have been subject to all the dangers of hoisting and setting in place. The actual workmanship would, of course, have been team work, done by a master with the help of many trained assistants. After the sculptures were in position, the work of painting and gilding had to be undertaken.

For long it was accepted as following from the records that the chief artist responsible for the external sculptures of the Parthenon was Pheidias. Later in a time of re-examination doubts have been raised, and recently Professor Hans Schrader has argued that Paionios and Alcamenes, who were said to have been the sculptors of the pedimental groups at Olympia, were actually the authors of the marble sculptures of the Parthenon, while Pheidias only supervised their work. The learned critic maintains that there are considerable differences in style between the two pediments of the Parthenon, and that Paionios designed that facing west while Alcamenes designed the Eastern pediment and the frieze. In 1908 I had observed the resemblance of the sculptures of the temples at Olympia and Athens. 'The lately discovered sculptures of Olympia, although more archaic in style, have much in common as compositions with the pediments of the Parthenon. The relation of the two works is not settled, but undoubtedly one derived much from the other.'

In the East pediment at Olympia as in the Western at the Parthenon, the composition is divided up into a central action and spectators who are separated from it by chariot groups; in both are very similar reclining and crouching figures, and pairs of figures are cut out of single blocks. Two metopes of centaurs and women at the Parthenon so closely resemble the two centaur groups at Olympia that one pair must be practically copied from the other. Again, the metopes of the two buildings are very like one another in the character of the heads and treatment of relief. To account for these facts there are other possibilities than that maintained by Professor Schrader. (1) Olympia was a great prototype carefully studied by Pheidias, the master of the Parthenon; (2) this master actually worked on the sculptures at Olympia; (3) he supplied designs for Olympia which were worked out by local sculptors; (4) the sculptures at Olympia are after all later than those at the Parthenon and imitated them. For myself I am drawn to think that (3) is the most likely theory.

The resemblances are rather in types, formal design and arrangement than in the subtleties of 'style,' feeling and craftsmanship. I cannot see close relationship of style in this sense between the sculptures of Olympia and Athens; nor can I perceive the alleged difference of style between the East and West pedimental sculptures at the Parthenon. Avoiding dispute, I will note a few observations which convince me that after all the most likely hypothesis is that the sculptures at the Parthenon were by Pheidias—that is, with the assistance of a large workshop staff and competent assistants.

It is agreed that the style of Pheidias is made known to some extent by the late copies of the gold and ivory Parthenos. It is argued that this figure is of a more archaic type than the external sculptures. It might well be severer, however, without being earlier. Westmacott observed nearly a century ago: 'Although the genius of Pheidias may have effected the fullest change in the architectural sculpture of the Parthenon, it is not probable that the old feeling would be disregarded in the statues of presiding deities. . . . These grand chryselephantine compositions are rather to be placed in the category of gorgeous idols.' Miss Harrison too has admirably said: 'The main conception was, as it should be, traditional; reverently to keep the old yet add the

new, to touch so little and transform so much, this is the proper quality of genius.'

'A conception like that of Pheidias did not spring full-grown from the artist's brain, it had grown up slowly to a complex perfection, deep-rooted in manifold tradition; it was the last outcome, almost crowded with multiple associations, of national belief.'

The true view, I believe, would be that the pediment figures and the Parthenos statue have the kinship of common parentage. Allowance has to be made for the wide differences in the function, scale and materials of the several works. One was of ivory and gold, of colossal scale, a sacred cultus image standing alone within the solemn sanctuary. The others were of marble, about a quarter the size of the cult image, parts of groups illustrating stories.

What would the critics have? Should not Pheidias have given his immense religious figure traditional continuity, aweing dignity, and structural simplicity? How can the figure be said to be comparatively archaic when it was imitated in the maidens of the Erechtheum and the Eirene of Cephissodotos? The reliefs on Athena's shield and the pedestal appear to have been as advanced and picturesque as any of the external sculptures. Schrader indeed points out resemblances between the reliefs on the Pergamon copy of the Parthenos and the frieze of the Parthenon. At the bottom of the shield was the figure of a dead girl Amazon, which shows the 'pathos' of later generations and was imitated for centuries—this is not archaic! The serpent supporting Athena's shield is so naturalistic that we might as soon call it decadent as archaic. It suggests twisting movement in the most wonderful way. The Athena of the W. pediment, its full rounded form, its drapery and the proud carriage of the head, is closely akin to the Parthenos. The remarkable resemblances to the statue which Furtwangler identified as the Lemnian Athena by Pheidias have already been pointed out. Above all the details of likeness there is a total expression: a combination of freshness with dignity which seems to have been one of the secrets of the great master. Again, there is some likeness between the pair of figures, Athena and Poseidon in the pediment, and the Athena and Marsyas attributed to Myron. Whatever be the exact facts regarding the latter group, the resemblance—which has been brought out by Lechat—is evidence of the Athenian tradition and early character of the pedimental figures.

Similar poses and drapery to the cult image are found on the Parthenon frieze. For the drapery compare Iris standing next to Hera on the East front. Here we find the same deep turn-over of the clifton passing well below the girdle, which shows just at the crown of the curved line which it forms across the body.

The small and dry copy of the Parthenos preserves a character in the arms which seems to be almost a signature of Pheidias. They are large and weighty and yet look soft, flowing in beautiful curves and resting quietly on some support. It is interesting to note that Johanson in an excellent study of the sculptures (1925), while he upholds their Pheidias authorship, objects to 'the

disproportionate heaviness and size of the arms' of the Parthenon—the 'unreasonably heavy and clumsy arms.'

More than twenty years ago I had noticed the special character of the women's arms in the pedimental sculpture, so the point is not produced for the sake of present argument.—'The soft rounded arms of the Demeter [1 Persephone of the E. pediment] and of the wife [2] of Cecrops, strong yet almost flowing in extraordinarily beautiful curves, are wonderful and lovely.' Haydon called attention to these arms. 'The first thing I fixed my eyes on was the wrist in one of the female groups. . . . *The arm was in repose and the soft parts in relaxation.*' The arm thus seen must have been Persephone's [1], for among Haydon's drawings in the museum is a large special study of this magnificent arm. Compare again the hand of the Parthenos *resting* on the shield and the hand of the 'Persephone.' The same type of arm appears again on the E. frieze—the arm of Hera, which at small scale suggests in an extraordinary way the softness and 'whiteness' of the goddess's arms. I know no such arms in sculpture as those of the Parthenos and the marbles of the Parthenon. The pose—the bent left leg and raised foot, the forward leaning body—of the Parthenos, is this archaic? Examine in the dry little copy the ivory neck, large and soft with a horizontal crease in it—is this archaic? Then compare with this the marble neck of the Athena of the W. pediment, 'like unto an ivory tower'; also the Laborde head and the Hera on the frieze. These soft necks, like the arms, are part of the style of Pheidias.

Further, notice the jewellery of the Parthenos: is this archaic? Compare the evidence for earrings, bracelets and necklace on the sculptures. Compare also the Medusa head on the breast of the pedimental Athena to that of the Parthenos, and the similar cusped edges of the aegis in each case, also the thick shoe-soles of the Parthenos with a marble fragment of Athena's foot from a pediment in the museum. We must conclude that the Parthenos, the Lemnian and the pedimental figure are a triad of sister works.

Schrader sees a marked difference between the sculptures of the Eastern and Western pediments, and supposes that they were not even the designs of the same master. On the contrary, it is their kinship which impresses me. The figure which stood in the W. pediment of 'Iris' with its thin drapery, might be carved by the same craftsman who wrought the wonderful 'Aphrodite' of the E. pediment. Compare also the fragment 307 T. with the forms and draperies of more than one of the figures of the eastern front. Puckered edges of drapery occur in both pediments.⁶ I agree entirely with Johansen (1925), who can find in the two pediments 'only a difference of degree, not any actually essential difference; it is in no way greater than may be expressed by the word development.'

W. R. LETHBRY.

⁶ These puckered edges have been described as selvettes, but I have just observed the wide hem of a piece of stuff which is so

like what is represented that I cannot doubt such a hem was imitated in the sculptures.

THE NEUTRALITY OF DELOS

THE problem of the neutrality of Delos has been the subject of a searching investigation by W. W. Tarn published recently in this *Journal*.¹ The argument turns mainly on a purely epigraphical question, namely, the interpretation of the formula for the setting-up of a stele in the decrees of the Island League. Its historical importance is great, because, if Tarn is right, we should be justified in utilising the Delian Royal festivals for the reconstruction of the political history of the third century, which has rightly been styled the darkest period of Hellenism. As in the fourth Excursus of his large work *Antigonos Gonatas*, the distinguished scholar maintains the thesis that Delos became a member of the Island League, and that the varying history of this League is reflected in the establishment of festivals in turn by the Ptolemies, by the Seleucids, and by the Antigonids. The evidence for his theory he finds in the argument that the Islanders, if they wished to set up an inscribed stele in Delos, were *not* obliged to address a petition to the Commune of Delos, requesting the grant of a site in the sanctuary; the Islanders therefore controlled the site and ground of Delos, which implies that Delos belonged to the League. Although I raised objections to Tarn's thesis,² as did Roussel at an earlier date,³ I would gladly be the first to agree with him, had he succeeded in bringing forward convincing proof of this theory. As this has not been the case, in view of the wide significance of the problem I think it advisable to break silence and to expose my objections to the criticism of experts.

Before we enter upon the examination of the epigraphic material, it will be needful to obtain a clear conception of the usual course of procedure in Greek lands, which had to be carried out if a proposition were framed to set up an inscribed stele in another city. Three stages are to be distinguished:—

(1) State A must frame the decree which anticipates the publication of the record within the territory of State B.

(2) Then State A must approach B with the request that B will permit the execution of the decree and will grant a site for the stele. These negotiations could be conducted verbally or in writing. It was not infrequent for the states to have recourse to diplomatic methods in these cases, and extraordinary *πρεσβυται* or *επουρηγοι* and *θεωποι* might be entrusted by A with the negotiation. In these cases the original decree of the first city contains as a rule an expression of its wishes in such a way that particular instructions are

¹ *J.H.S.* 1934, p. 141 f.

² *G.S.A.* 1917, p. 453.

³ *B.C.H.* 1911, p. 447.

given to the negotiators. This supplies us with valuable material (see below, § I). As a rule, these instructions were given in writing. But these documents, dealing with a mere detail of administration, only received publication, and so have only come down to us, in exceptional cases. *The rarer they are, the greater the significance of the few surviving documents*: for, to stake out our claim right here, they permit us to state, without reservation, that occasionally A approached B with the request to grant a particular site chosen and proposed by A (see below § III).

(3) Finally, the decision of B must be obtained to the request of A, whether verbal or written. These decrees have a very unequal value for our problem. Most important are those which by their terms suggest the substance of the request or which give information with regard to the course of the verbal negotiations with the representatives of A. In these instances the decrees furnish an adequate substitute for the missing request of A. Decrees of this third category I discuss in § II.

It will serve our purpose not to begin with those instances which concern inter-state negotiations, but to examine first the usual practice within a state. In Athens it was a matter of almost every-day occurrence that the decision as to a site was left to the interested parties: cf. *I.G.* ii. 1², 450, *ἔξεῖναι δὲ αὐτῷ καὶ εἰκόνα στήσιν . . . ἐν ἀγορᾷ ὅπου αὖ βούληται πλὴν παρ' Ἀρμόδιου καὶ Ἀριστογείρονος*.⁴ This example is exceptional in that no request had been made by the person honoured. But a whole row of Ephebe inscriptions show that the proposers of the decree had themselves selected in advance a site on which to erect the monument and came before the Assembly with a definite proposal. The state in these cases confined itself to granting the request, *I.G.* ii.² 1041: [*ἐπιχωρησάτω δὲ τοῖς ἐφέβοις . . . ποιήσασθαι τῆς εἰκόνης τὴν ἀνάθεσιν, ἐν ᾗ αἱ [τοῦνται τόπω]*; compare the same formula in 1049-1051, also the *ἐν ᾗ αὖ εἰκαίρον τόπω* of 1039. How far the freedom of the petitioners extended in their choice of site is most clearly seen in the instance of Eumaridas of Kydonia in Crete, *I.G.* ii.² 844. Athens had originally decreed that his statue should be set up in his honour on the Acropolis (line 26). He seems not to have been satisfied with this site and availed himself of the intervention of Eurykleides and Mikion to have the site changed to one *ἐν τέρμει τοῦ Δήμου καὶ τῶν Χαρίτων*; and in fact the people passed a decree to this effect; l. 42. *καθάπερ αἰτοῦνται αὐτῷ Εὐρυκλείδης καὶ Μικίων*. As in Athens, so in Kalymnos; *S.G.D.I.* 3569. A certain Aratokritos had made a request for the grant of a site 'near the Theatre.' The decree runs:—*δόμῳ αὐτῷ τὸν τόπον τὸν ποτὶ τῷ θεάτρῳ ὃν αἰτεῖται*. Finally, let us cite an example from Cyzicus, Michel, *Rec.* 537. As a site for the statue of Kleidike, priestess of Cybele, her associates request *συγχωρηθῆναι ταυταῖς τόπον ἐν τῇ ἀνδρῆα ἀγορᾷ ἐπὶ τοῦ προγονικοῦ αὐτῆς συνεδρίου τὸν ἀπὸ δούσεως τοῦ ἀνδριάντος τοῦ ἀδελφοῦ αὐτῆς Διονυσίου τοῦ Ἀσκληπιάδου* and the state approved; *ἔξεῖναι αὐταῖς ἀναθεῖναι, καθάπερ ἀξιόουσιν*; and similarly 538,

⁴ Cf. the decree of Ollon, *Syllage*, 730, *ἡμεῖς αὐτῷ βούλευται*, where a site was granted *ἐν ᾗ αὖ τόπος αἱ πό-*

when the request was made to set up a portrait (τιναξ εικονικός) of Kleidike in the shrine τῆς Μητρὸς τῆς Παλαιανῆς ἐν τῷ παρθενῶνι (l. 4). The decision of the people runs: καὶ συγκεχωρήσθαι αὐτῷ τὸν τόπον, καθάπερ ἄξιοι.

Tarn naturally does not deny that in these cases a request for a particular site is expressed. But he advances the opinion (p. 148) that this was only permissible in the internal affairs of a state, and that the examples of this procedure 'involve no questions as between different cities.' I fail to see what fundamental difference can exist between the two cases. From the material we have just examined I can only draw the conclusion that the choice of a site was not unfrequently made by the petitioner before he brought forward his proposal, and that it was occasionally possible even after the official proceedings for him to secure a change of site, as in the case of Eumaridas. If in the case of the erection of a monument in another town the authorities seem to have adopted this course less frequently—which we have still to prove—the explanation of the change need not lie in any fundamental difference of procedure; much more probably, lack of knowledge of the local conditions in the foreign town is the reason for drafting the request in only general terms. If we accept Tarn's hypothesis, this selection of a site can never and nowhere be found. He emphasises the proposition that the request of A contains no concrete proposal, simply a request for a general site, and that presumably as a matter of courtesy in international correspondence it was left open for State B to assign the particular site for the erection of the monument. 'Consequently, so far as I know, we never find (my italics)—and this is of the first importance—that A in its decree asks B for a particular site'; so he says on p. 149, and also p. 149: 'Every phrase equally leaves it in the hands of B exactly where to put the stele.'

I will gladly admit to Tarn that there are instances in rich variety in which State A in passing the decree and approaching B with the request for a site leaves the selection of that site entirely in B's hands. By way of illustration I cite *I. v. Priene*, 47. 28, a decree of Bargyllia in favour of Priene, in which instructions were given on the road to the ambassadors παρακαλεῖν δὲ αὐτοὺς καὶ τόπον ἀποδείξαι, ἐν ᾧ ἀνατεθήσεται ἡ στήλη, κ.τ.λ.; further, *I.G.* xi. 4, 1052, a decree of Thessalonica in favour of Delos—ἐπειδὴ Βούλων ὁ παρὰ τοῦ δήμου τοῦ Δηλίων ἀποσταλὲς πρεσβευτὴς πρὸς τὴν πόλιν τὰ [τε] ψήφισματα ἀπέδωκε, καθ' ἃ . . . ἤξιον τὴν ἡμετέραν πόλιν οἰκείως ἔχουσιν πρὸς αὐτὸν δοῦναι τόπον ὡς βέλτιστον; and again a decree of Iasos for judges from Priene, *I. v. Priene*, 53; the Demos proposes to dispatch to Priene an embassy which among other matters is to make the request ἵνα τὸ ψήφισμα ἀναγραφῇ ἐν ἱερῷ ἐν ᾧ ἂν αὐταῖς φαίνεται. Finally, an especially striking example is provided by one of the Thessalian inscriptions published by Arbanitopoulos;¹ the magistrates of Gonnoi are commissioned [προνοηθῆναι δὲ καὶ πρὸς τὴν πόλιν τὴν τῶν Κισρικίων [γράψαι, ὅπως τιτῇ ἐν τῇ ἀγορᾷ, οὗ ἂν ἀ[ρῶνται, καὶ παρ' ἐκείνοις τὸδε τὸ ψήφισμα].

¹ *Ep. Arch.*, 1914, p. 174, No. 234.

This form of the request⁶ must be kept constantly in mind in the following sections, when we endeavour to ascertain whether any instances exist of a state approaching another with a particular proposal for the choice of a site.

I. *Decree of A with instructions for its own officials or ambassadors.*—Tarn has already cited the decree of Minoa in Amorgos for Kritolaos of Aigiale (*I.G.* xii. 7, 388). This decree is to be carried into effect through an ambassador, whose instructions we have in line 34: ἐλθεῖναι πρεσβευτήν, ὅστις . . . παρακαλέσει Αἰγιαλαῖς . . . στήσαι αὐτήν (τὴν στήλην) οὗ ἂν προαίρηται Κριτόλαος. Beyond doubt, strong influence is being brought to bear upon State B in regard to the choice of a site. Tarn, however, attempts to minimise the significance of this passage, regarding this expression of an especial request as an unusual distinction for the man honoured, and further suggesting that this man, who was in fact a citizen of Aigiale, filled some official position in his home town, and would therefore in normal circumstances have to take part in the selection of a site. But that there is no ground for such an assumption is proved by the inscription which follows, *I.G.* xii. 7, 389. It is a decree of Aigiale for this same Kritolaos and his brother Parmenion. They are permitted, *inter alia*, to set up the decrees τῶν δημοσίων εἰς ὁποῖον ἂν βούλωνται τόπον, i.e. the site of the state is left to their own choice. We have the same turn of phrase as in the Athenian and Cyzicene decrees previously cited (p. 21).

Plainer still is a series of decrees in which the *home* magistrates are entrusted with negotiations in writing for the grant of a particular site in State B. A decree of Akraiphia in honour of judges from Larissa, *I.G.* vii. 4131, runs as follows: γράψαι δὲ καὶ τοὺς πολεμάρχ[ο]ν καὶ τὴν πόλιν πρὸς τὴν πόλιν τῶν Λαρισσίων καὶ οἰσεῖσθαι δεῖν αὐτὴν τοῦτο τὸ ψήφισμα [νε]γράψ[αι] καὶ ἀναθεῖναι ἐν τῷ ἱερῷ τοῦ Ἀπόλλωνος τοῦ Πτωλ[οῦ].⁷ Compare the decree of Akraiphia in honour of judges from Megara, *B.C.H.* xxiv. 1900, p. 74: ἀναθεῖναι ἐν τῷ ἱερῷ τοῦ Διὸς τοῦ Ὀλυμπίου; and the decree of Gonnai in honour of judges from Monda, 'Εφ. Ἀρχ., 1914, p. 180, No. 240: γράψαι δὲ κα[ὶ] πρὸς τοῖς τῶν Μονδαίων ταγοῦς καὶ τὴν πόλιν [δι] ἐπιστολῆς, [ὅ]να ἀ[πο]καλούμενος καὶ παρ' ἐκείνοις ἡ προξενία ἀναγραφῇ εἰς κίον[α] λ[ε]ίψ[ου]σιν καὶ τεθῇ ἐν [τ]ῷ ἱε[ρ]ῷ τῆς Θέμιδος. As clearly as we can desire, in these decrees State A announces that B is to be requested to grant a site in a particular sanctuary.

II. *Decision of B following a request of A.* At the head of this section I set a decree of Cyzicus (Mich. 534), the provisions of which throw light upon the preliminary negotiations we have been considering. The state of Paros has

⁶ Compare *I. v. Priene*, 8 31 ff., στήσαι εἰς τὸ ἱερόν, οὗ ἂν τῶι δήμῳ τῶι ἀπαρτιζομένῳ τοὺς δικαστὰς ἐπιτήδους φαίμεθα εἶναι, 63 20 ff.: ἀναθεῖναι εἰς τὸς τόπους, ὅν ὁ δὲ δήμος ὁ Προμίων ἀποδείξει.

⁷ I do not cite in this connexion *I.G.* vii. 4130 (decree of Akraiphia in honour of

judges from Larissa), because the document only expresses the wish (ἀναθεῖναι τὸ τῷ συνεσόντι τόπῳ τῇ πόλει). The marked difference between this example and 4131 is enough to show that in the latter a request for a particular site is meant.

passed a decree in honour of the Nesarch Apollodoros, that a stele shall be set up to him at Cyzicus, in the Agora. It has sent an embassy to Cyzicus to request sanction for this (l. 14): καὶ τόπον αἰτεῦνται ἐν τῇ ἀγορᾷ. The reply of Cyzicus (l. 23 f.) runs: δεδῶσθαι δὲ αὐτῷ τόπον, ἐν ᾧ στήσουσι τὴν εἰκόνα παρὰ τὰς τραπέζας πρὸ τῆς στοᾶς τῆς Δωριακῆς. Parallel with this example I range the following, in which Iasos and Priene are concerned (*I. v. Priene*, 51). Iasos gave instructions to representatives sent to Priene (Decree of Iasos, l. 27 f.): πρεσβεῦνται οἵτινες . . . ἀξιῶσασιν δὲ καὶ ἵνα . . . τὸ ψήφισμα ἀναγραφῇ ἐν τῷ ἱερῷ τῆς Ἀθηνᾶς τῆς Πολιάδος. We have the reply of Priene in l. 61 f.: ἵνα δὲ καὶ τὰ ἀξιούμενα ὑπὸ Ἰασέων συντελεσθῇ . . . τόπον δὲ δεδῶσθαι ἐν τῷ ἱερῷ τῆς Ἀθηνᾶς τῆς Πολιάδος ἐγγὺς τῆς στήλης τῆς περιεχούσης τὰς παρὰ Χίων τιμὰς. According to Tarn, the request for a site for the stele in the sanctuary of Athena was a request for a *general* site. This opinion could only be accepted if no other site in Priene were available for the stele. The record in *I. v. Priene*, 49, will be helpful in settling this point. It is a decree of Priene in reply to a request of Chios and runs—ἀναθεῖναι δὲ καὶ τὸ ψήφισμα τὸ παρὰ Χίων τὸ γινόμενον παρ' αὐτὴν τὴν παραστάδα τῆς στοᾶς τῆς διπλῆς τῆς ἐν τῇ ἀγορᾷ, προσαναγράψαι δὲ καὶ τὰ ψηφίσματα τὰ ὑπὲρ τῶν δικαστῶν καὶ τοῦ Χίων δήμου καθάπερ καὶ αὐτοὶ ἡξιώκασιν. From this we may conclude that, beside the sanctuary of Athene, the market-place was looked upon as a possible site. And further, that other sanctuaries might be selected is proved by the request of Iasos, *I. v. Priene*, 53, 34: ἐν ἱερῷ, ᾧ ἂν αὐτοῖς (τοῖς Πριηνεῦσι) φαίνηται.

We have then to conclude that a concrete proposal* is implied in the request for a site in the Temple of Athena Polias. It is only on this supposition that we can understand how the people of Priene could regard their decree 574, 4ff. as the *fulfilment* of a wish expressed by Iasos, even if they distinguish the site with more precision than did Iasos in its decree. In essence they grant the petitioners the site they had chosen, exactly as Cyzicus did to Paros. As Iasos, as well as Paros, had had recourse to diplomatic procedure in order to obtain the fulfilment of its wish, we may assume that these negotiations had led up to the choice of a site 'near the stele of the Chians.' And with it we find again the situation that we encountered in the decree of Paros; State A formulates a request for a particular site it has itself selected.

III. *Decree of A, letter of A requesting the grant of a site in B, and decision of B.* The examples hitherto cited suffer from the defect that we possess the documentary record of the handling of the negotiation in a fragmentary state only and must therefore supply the gaps by reasoning. But in one case, *I.G.* v. 2, 367, we possess the records in unbroken order, and it will therefore be possible

* This fundamental difference between a request for a particular site and for a general site is clearly shown by a comparison between our examples and the following decrees; cited above on pp. 32-3; decrees of Priene, *I. v. Priene*, 8; of Parion, *I. v.*

Priene, 63; of Bargylia, *I. v. Priene*, 47; of Gannoi, *Επ. Ἀρχ.*, 1914, p. 174, No. 230; of Iasos, *I. v. Priene*, 53; and of Thessalonica, *I.G.* xi. 4, 1032; in all these the grant of a τόπος is asked for nearly in general terms.

to remove the last doubt. The situation is as follows: Demetrias has obtained arbitrators from Kleitor and Patras; their task brought to a happy conclusion, the Magnetes pass in their honour a decree (ii. l. 7 f.) which is to receive triple publication, in Demetrias, in Kleitor and in Patras: and the στρατηγός and the γραμματεὺς of the League are commissioned to write to Kleitor and Patras [ὅπως παρακολουθήσωσι τὰ δεδογμένα καὶ τόδε] τὸ ψήφισμα ἀνα[γραφέν] εἰς] στήλην ἀνα[θῶ]σιν κα[ὶ] παρ' αὐτοῖς ἐν Κλειτορί μὲν ἐν τῇ ἀγορᾷ, ἐν Πάτραις] δέ [εἰς τὴν ἀγορὰν· παρὰ τὸν Ἀπ[όλλωνα, ἐν Δημητρί]δι δὲ ἐν τ[ῇ ἀγορᾷ] παρὰ τὴν Ἀρτέμιδα (l. 20).⁹ In the same way the town of Demetrias decides (iv. l. 30 f.) to write to the authorities of Kleitor and Patras asking that its decree may be set up in both these towns, specifically, Κλειτόριοι [ἐν τῇ ἀγορᾷ ἐν τῷ ἱερῷ τῆς ΠΑΛ . . . τῆς] Ἀνταίας παρὰ τὸν Ἀτ[ᾶνα, . . . Πατρεῖς δὲ ἐν τ[ῇ ἀγορᾷ] παρὰ τὸν Ἀπ[όλλωνα] (l. 47 f.). Surely these two pieces of evidence of our first category propose in clear words a particular site adequately described in each of the towns. Tarn's theory is refuted even more clearly, if that be possible, by the letters of the Generals of the League (i. l. 1 f.) and of the town of Demetrias (iii. l. 24 f.) to Kleitor (the corresponding letters to Patras are not preserved). The request of the League officials goes as far as to propose a site 'in the Agora.' The authorities of Demetrias are more definite in formulating their wish with regard to the site (l. 27 f.): [ὅπως ἀνατεθῇ ἐν τῇ ἀγορᾷ ἐν τῷ ἱερῷ τῆς ΠΑΛ . . . τῆς Ἀνταίας, καθάπερ δέδοκται καὶ τῷ ἡμετέρῳ δήμῳ]. There can be no dispute that here is a request for the grant of a definite particular site. Yet Tarn asserts (p. 150) that 'the letter to Kleitor shows that the decree is merely quoting verbally what Kleitor had already arranged; the letter says, ὑμεῖς καλῶς καθότι καὶ τοῖς Μάγνησι δέδοκται προνοηθέντες ἔστε, ὅπως . . . ἀνατεθῇ ἐν τῇ ἀγορᾷ (note προ).' So sure is he of his case that he adds, 'The matter is absolutely free from doubt.' In the interest of science it is fortunate that the text as it has come to us is free from doubt; it makes Tarn's interpretation impossible, for there can be no supposition of a previous decree of Kleitor. The phrase προνοηθέντες ἔστε emphasised by Tarn is simply not there. Tarn's error is due to the fact that he has overlooked the decisive opening phrase in both letters. In the letter of the League it runs (l. 4): [ποιήσετε δὲ καὶ ὑμεῖς καλῶς καθότι καὶ τοῖς Μ[άγνησι]ν δέδοκται, [π]ρονοηθέν[τες] ὅπως ἀναγραφῇ . . . καὶ] ἀνατεθῇ ἐν τ[ῇ ἀγορᾷ]; compare the corresponding words in the letter of Demetrias, l. 27 f.: καλῶς [δὲ] ὑμ[εῖς] ποίη[σ]τε προνοη[θέν]τες κ.τ.λ. There can be no doubt that by προνοεῖν a negotiation contemplated in the future is meant; that is, *the decree of Kleitor*, which is to correspond with those of the League and of Demetrias, *is still awaited*. These two cases cannot be reconciled with Tarn's theory. Neither the League nor Demetrias has been in any closer touch with Kleitor. Thus here again we have the situation Tarn holds to be impossible, 'that an independent city specifically asks another for a particular site.'

⁹ I restore the phrase παρὰ τῆς Ἀρτέμιδος by comparison with l. 40.

The ordinary Greek practice employed for setting up a stele in other cities should by now be clearly understood, and we are in a position to bring the Delian inscriptions within our purview. In *G.G.A.*, 1917, p. 452, I had noted, for the treatment of our problem, two decisions of the community of Delos in reply to requests of Chios and Hestiaea (*I.G.* xi. 4, 1022 and 1025). From the subject-matter of decree 1022, line 2, [ἐπειδὴ οἱ Χίοι] ἀποστέλλαντες πρεσβυτήν [πρὸς ἡμᾶς αἰτοῦνται] τόπον ἐν τῷ ἱερῷ, ὅπου σταθῆσεται ἡ στήλη, I had concluded that a request for a particular site was included in the negotiations. In the case of Hestiaea we possess the decree (*I.G.* xi. 4, 1055) ἀναθεῖναι . . . εἰς τὸ ἱερὸν τοῦ Ἀπόλλωνος τόπον αἰτησαμένους τὸ κοινὸν τῶν Δηλίων, and in *I.G.* xi. 4, 1025 we have the answer of Delos to Hestiaea, δοῦναι τόπον ἐν τῷ ἱερῷ Ἰσπιάειν [δὲν] αἰτοῦνται, ἀνὰ μέσον τῶν εἰκόνων τῆς τε Ὀφειλλ[. καὶ . . .]ικίδος ὥστε ἀναθεῖναι στήλην, which I interpreted in the same sense. Tarn cannot admit this, consistently with his fundamental principle; accordingly in the decision of Delos he renders the words τὸν τε τόπον δὲν αἰτοῦνται ἐν τῷ ἱερῷ ἔμπροσθε τοῦ νεῶ τοῦ Ἀπόλλωνος as follows: 'as to the site they ask for in the hieron, we give it before the temple of Apollo'; and further, 'and is not "as to the site they ask for in the hieron before the temple of Apollo, we give it."'. If the meaning Tarn presumes were really there, we should, in my opinion, be entitled to expect τὸν τόπον τὸν ἐν τῷ ἱερῷ δὲν αἰτοῦνται, δοῦναι ἔμπροσθε τοῦ νεῶ. But the problem may for the time being remain in doubt; let us first hear the other texts, to gain a clear idea of the procedure in vogue at Delos. And here it is to be observed that petitions from foreign cities are hitherto entirely absent; as a substitute we must use the provisions contained in either the instructions to ambassadors in the decrees of the States (A) or the decisions of Delos (B). (1) In pursuance of an honorary decree Theangela had appointed ambassadors to Delos, οἵτινες . . . ἀξιόσουσι αὐτοὺς δοῦναι τόπον ἐν τῷ ἱερῷ κ.τ.λ. (*I.G.* xi. 4, 1054); and the decision of B runs (1024): δοῦναι τόπον Θεαγγελεῦσιν ἐν τῷ ἱερῷ, ὥστε στήσαι στήλην κ.τ.λ. I ask, where was this site? It is evident that it must have been prescribed with precision in the course of the verbal negotiations with the ambassadors; the brevity of the phrasing is comprehensible and reasonable only upon this supposition. (2) Similar is the case of Philoxénos of Samothrace, who negotiated for the erection of an Island decree in Delos (whether with the authorisation of the League or on his own initiative is immaterial); *I.G.* xi. 4, 1023, αἰτεῖται τόπον ἐν τῷ ἱερῷ. The reply of Delos runs δοῦναι τὸν τόπον. With this let us compare the decree of Kalymnos *S.G.D.I.* 3569, previously cited on p. 21; δόμεν αὐτῷ τὸν τόπον τὸν ποτὶ τῷ θεάτρῳ, δὲν αἰτεῖται, and we shall recognise that at Delos as in Kleitor and Patras, in Cyzicus and Priene, in Larissa and Megara, requests were received in which the petitioners made concrete proposals for a particular site. If we now cast our eye back on the texts 1022 (Chios) and 1025 (Hestiaea), we are surely entitled to say that the translation rejected by Tarn is the correct one. I return later to the consequences of this result: the Island decrees call first for examination.

The formula for setting up a stele in the decrees of the Island League¹⁰ has played an important part in the previous discussion of the problem of neutrality, as a result of the far-reaching consequences which Tarn has desired to deduce from it. It embodies no request for the grant of a site, but briefly states that the stele is to be set up in Delos; accordingly, Tarn concludes that the League lay under no obligation to make a request. 'It can mark out its exact *topos* for itself,' which involves the ownership of the island by the *Koinon*. 'With this the theory of the *koinon topos* falls to the ground': this is his own expression.¹¹ To the objections raised by Rousel and myself he now declares that discussion of this formula is 'a mere beating of air' (p. 153). It is a pleasure to me to observe that with this phrase the distinguished scholar has—if only partially—come round to our point of view: for as far back as 1917 I had indicated (in *G.G.A.*) that the omission of the request was of no significance as regards the international status of Delos. If thus far agreement prevails, I cannot accept the further deductions made by Tarn. He has now set his theory on a broader basis by extending his study of the formula to the practices observed between other communities. His result is that the same formula may have a different meaning according to the relation existing between communities A and B. 'In class one, where A and B are mutually independent cities, it is a *request*. In class two, where A controls B in some form, it is an *order, or direction as of right*.' To come now to the details of the Island decrees, while it is true that not all do so, at least two of them clearly indicate the site at which the stele is to be set up: xi. 4, 1036, παρὰ τὸν βω[μὸν τῶν βασιλέων] and xii. 7, 906, παρὰ τὸν βωμὸν τοῦ Σῶπτος [Πι]ολε[μεί]ου. Arguing from his premise that a demand for a particular site should never appear in decrees of A, Tarn supposes in these instances that they are commands, addressed to the community of Delos. And as thereby the League is spontaneously disposing of Delian land and soil, it follows that Delos has been a member of the League (p. 154). I cannot consider the argument valid. Tarn reads into the text a meaning which, as he admits in other places, cannot be deduced from the actual wording. The alternative, request or order, is irrelevant for the documents we are treating, for all these decrees do not apply to foreign states. We are not dealing with letters of A to B, but entirely with decrees of A: and these contain regularly instructions from the political unit passing the decree to its own magistrates. The official concerned may be mentioned,¹² or an impersonal phrasing may be adopted,¹³ it is all the same. An exception is provided only by some Attic

¹⁰ ἀναγράφει τὸ ψήφισμα τοῖς ἐς στήλην λίσθην καὶ ἀναθίσκει τὴν ἐπιθήσαντες ἐς τὸ ἐν δήῳ ἱερόν, or ἐν δήῳ ἐς τὸ ἱερόν τοῦ Ἀκράλφειου, or similarly; cf. *I.G.* xi. 4, 1036 ff.

¹¹ *Antigonis Oualata*, p. 431.

¹² As *I.G.* iv. 1030, ἀναγράψαι δὲ τοῖς συνέδροις (Island League); cf. 1032–1041; xii. 5, 817 ἀναγράψαι τ.τ.ψ. τὸν τιμίαν (Island League); *L. v. Magnesia*, 32–36 f., ἐπιμαρτυρεῖται ὅπως γράφει Κρίτων τῶν ἐπικλητῶν (Epiklete League); *Syllogis*, No. 729, τὸν γραμματεῖ ἀναγράψαι (Amphiktyonia League);

and unusually plainly in the decrees of Gonnoi, *Ep. Aeg.* 1014, 174, 234; 177, 257, προσηθήσεται δὲ καὶ τοῖς ἱεράρχαις τῶνδε πρὸς τὴν πόλιν τοῦ Καρίου γράψαι ὅπως πᾶσι, κ.τ.λ., and 180, 240, γράψαι δὲ καὶ τοῖς . . . ταγόνι, κ.τ.λ.; and of Akraiphia, *I.G.* vii. 4130, γράψαι δὲ καὶ τοῖς πολιάρχαις . . . καὶ ὁμοῖα δὲν αὐτὴν τοῖς τὸ ψήφισμα ἀναγράψαι καὶ ἀναθίσκειν.

¹³ As in *O.G.J.* 222, ἀναγράψαι δὲ καὶ . . . τὸ ψήφισμα (Toxic League); and *I.G.* ix. 2, 1103, ἀναγραφῆσαι ἐς στήλην λίσθην, ἥ καὶ ἀναθίσθαι (Magnesian League).

decrees of the time of the First or Second Sea-League. In these an order is given to officials of the independent confederate state. But this order is also quite frequently set out; cf. *I.G.* xii. 5, 480, καταθέναι δὲ τὸ ψήφισμα τὸδε τὰς ἀρχάς τὰς ἐν ταῖς πόλεσιν (Siphnos) and ii.² 111, ἀναγράψαι τὸς στρατηγὸς τὸς Ἰουλιητῶν (Julia). These instances cannot, therefore, be adduced as parallels. And the apparent disposal of alien soil and land is no more meant than in the former examples. The duty of the officials mentioned was to place themselves in communication with the authorities of community B, and in conjunction with these to negotiate for the execution of the wish of their state. For example, if the Magnesian League desires a stele to be set up ἐν ᾧ ἂν αὐτός (Hermogenes) αἰρήται τόπω,¹¹ this is unmistakably a parallel case to the οὗ ἂν προσαιρήται Κριτόλαος¹² of the Minoa decree, in which Tarn also does not think that State A passing the decree has any intention or claim to exercise a right to dispose of the soil of B. But further, *I.G.* xii. 5, 817 cannot bear the signification Tarn extracts from it. This Island decree is to be set up in public simultaneously at Delos and Tenos; at Delos in the shrine of Apollo; at Tenos in the Temple of Poseidon and Amphitrite. If an extraordinary embassy is appointed to be sent to Delos, and not to Tenos, this in no way implies that there was no need to apply to Tenos for the grant of a site in the sanctuary; it indicates simply that the negotiation was left in the hands of the Tamias, while greater ceremony was employed for Delos.

We can now sum up the results of this investigation. We have seen that it was usual all over the Greek world, in decrees which propose the erection of a stele in another state, to have in view a particular site; further, that in relations with Delos¹³ states occasionally make proposals for a particular site; facts which cannot be reconciled with Tarn's hypothesis. And the attempt to support this hypothesis by reference to the practices of the other *Koina* must be pronounced a failure, because the situation in reality does not entail the disposal of foreign soil and ground, but only a direction to the local officials. Thus an analysis of the inscriptions shows that no proofs have been propounded for the theory that Delos in the third century B.C. was a member of the Island League. But bearing in mind Niebuhr's phrase, 'Der Historiker bedarf des Positiven,' the investigation cannot be allowed to remain at this purely negative result. Three arguments have been produced by Roussel and myself to show that Delos did not belong to the League. Let us set aside the question whether Philoxenos acted on behalf of the League (Roussel-Kolbe) or as a private individual (Tarn);¹⁴ let it also remain *in dubio* whether from the loan which the Delians, that is, Council and People, made to the Islanders we are to conclude

¹¹ *I.G.* ix. 2, 1103.

¹² *xii.* 7, 385.

¹³ To the examples cited may be added *xi.* 4, 1052. This is the decree of Syros already adduced by me in *G.O.A.*, 1917, which concludes with the words ἀεργῶναι εἰς, καὶ ἀποδοῦναι εἰς τὸ ἔργον τοῖς Ἀπολλωνεῖσι καὶ Δελείοις. It is impossible that this is a

request in the sense meant by Tarn, p. 153. The numerous analogies show that it is an 'Order to the local officials.' The decree of Syros therefore has its value for our problem as being an example of a demand for a particular site.

¹⁴ *I.G.* xi. 4, 1023.

that the island was autonomous with respect to the League (Renssel-Kolbe) or not (Tarn);¹⁸ the decision must be made on the ground of the island decrees xi. 4, 1038-41 and 1048. In these the League orders the steles to be set up in Delos, and then it continues, κατὰ ταῦτα¹⁹ δὲ ψηφισάσθωσαν αἱ μέρη-χουσαι τῶν πόλεων τοῦ συνεδρίου καὶ ἀναγραφάτωσαν κ.τ.λ., or in similar phrases. Had Delos belonged to the κοινόν, the latter would have been able to content itself with the publication of the decree throughout the cities; or, if it undertook itself the publication in the sanctuary, it should have dispensed Delos from the duty of publication; for it is impossible that two copies were set up in Delos. Thus the formula of publication, always recurring with slight modification, speaks clearly against the inclusion of Delos in the League. And now as a final argument, I cite the analogy with Delphi; I observe with pleasure from his remarks (p. 147, 30) that Tarn does not believe in the thesis of Swoboda of Delphi's membership of the Aetolian League. Pontow's objections to my theory are to-day out of date. In the light of the new material which G. Klaffenbach kindly placed at my disposal,²⁰ the question must be decided against Swoboda and Pontow. Like the shrine of Apollo at Delos, so the shrine of Parnassos, seeing that it was a holy place, did not enter the political union of the neighbouring Κοινον.

It has seemed to me a duty to defend what I consider the right against a distinguished historian. But I would not lay down my pen without declaring frankly that it would be of the greatest value if he would agree with me. He has written (p. 154), quite rightly as I think, that his thesis 'could only become arguable if someone should ever produce a decree, of indisputable genuineness, in which one independent city specifically asks another for a particular site.' I hope that I have fulfilled this condition not once but many times. If Tarn admits this, I may claim to have reconstructed the course of events in the third century,²¹ and thus by our united efforts we should have made a great step forward over this heavy ground.²²

WALTHER KOLBE.

My article has at least had the merit of evoking a most interesting paper from Professor Kolbe. His classification of the inscriptions differs from mine; but I cannot myself see that requests by a citizen to his own city for a particular site, or requests by one city to another for a site in some hieron ('Please put it in your record office'), bear on my theory, which was that one independent city never asked another for a particular site as I defined it; on this, and on the reasons

¹⁸ *I.O.* xl. 4, 559.

¹⁹ The passage is to be read thus; not, with Renssel, κατὰ ταῦτα.

²⁰ Cf. my remarks, *Zeitschrift d. Savigny-Stift. f. Rechtsgesch.* 49 (*Röm. Abt.*, 1, 1929, 141).

²¹ Cf. p. 141. * But I have borne in mind Professor Kolbe's arguments for Delian neutrality in his drastic reconstruction of this period, a reconstruction which is

speculative, but which is unfortunately based on other unproved hypotheses besides the Delian.

²² My greatest thanks are due to Mr. F. N. Pryn for translating my paper into English, and to Mr. W. W. Tarn for his kindness in replying to my argument. The point at issue between us must be left to the criticism of experts.

adduced for Delos not being a member of the League, I can only refer to what I have already said. The reason why, by the courtesy of the editors of this *Journal*, I am writing this note is that Kolbe claims to have found in *I.G.* v. 2, 367 a definite instance of one independent city asking another for a particular site, in my sense; if this be correct, my theory is gone. I dealt with *I.G.* v. 2, 367, but evidently did myself some injustice by trying to be too brief. The matter turns on the (similar) letters of the General of the Magnesians League (No. I) and of Demetrias (No. III) to Kleitor; and the point at issue between Kolbe and myself is, Was there (in each case) a previous decree of Kleitor or not? The fragmentary nature of the originals can be seen in Milchhöfer's transcript, *Atth. Mitt.* vi, p. 303, Bellage I, on which all subsequent work is based; when Kolbe says, 'the text as it has come to us is free from doubt,' I fear I cannot agree. I was quoting throughout from Professor Holleaux's restoration, *R.E.G.* x. 1897, pp. 284-5, in which I. ll. 4, 5 run thus: ἐψηφισμένου(ς) αὐτῶι τούτων ἔσκεν τὰς καθηκούσας τιμὰς ὑμεῖς κ[αλῶς καθ]ό(τ)ι καὶ τοῖς Μ[ά]γν[ησι]ν [δέδ]οκεται [π]ρονοηθέν[τες] ἔστω(ς) δ[ι]κω[ς] (III follows suit). Professor Wilhelm amended this passage, *Jahresh.* III. 1900, p. 43, and *Hermes*, XLIV, 1909, p. 54, thus: αὐτῶι τὰς καθηκούσας τιμὰς ποιήσετε δὲ καὶ ὑμεῖς κ[αλῶς καθ]ό(τ)ι καὶ τοῖς Μ[ά]γν[ησι]ν [δέδ]οκεται [π]ρονοηθέν[τες] δ[ι]κω[ς] (and so in III to correspond); this appears in *I.G.* and is the version Kolbe quotes. Wilhelm's reasons, which he gave very briefly, were (a) that his version is a well-known formula, and (b) that 'soviel ich sehen kann' it corresponds better to the lengths of the gaps given by Milchhöfer. With all respect, this last is hardly the case; Milchhöfer's dots are obviously not letters, and if in I. l. 5 his first gap takes seven letters [αλως καθ], the second, which is at least as long, cannot be filled by three letters [τες]; it requires seven also, as Holleaux gave. This, and the fact that in III. l. 27 Milchhöfer's copy gives ΣΤΕ, which is nearer to ἔστω than to ποιήσετε, decided me, despite Wilhelm's great authority, to follow the older version; but I should have explained why. When Kolbe says I am quoting words which are 'simply not there' (i.e. a restoration), he is doing the same; the 'decisive opening phrase' which I am supposed to have overlooked is also 'simply not there'; it is Wilhelm's restoration. But happily the matter does not rest upon restorations. Assume *I.G.* to be correct: nevertheless, the material word, twice repeated, is on the stone, and is of course given in *I.G.* Kolbe's view demands that I. l. 5 should read as if it were καθότι τοῖς Μ[ά]γν[ησι]ν [δέδ]οκεται; in fact it reads καθότι καὶ τοῖς Μ. [δέδ]οκεται; and this is repeated in the parallel passage III. l. 29, [καθότι καὶ δέδοκεται] καὶ τῶι ἡμετέρῳ δήμῳ. That is, the Magnesians (and Demetrias) do not say: 'as we have decreed,' but 'as we too have decreed'; there has then been a former decree (or resolution of some sort) communicated to the Magnesians and to Demetrias, which can only be that of Kleitor. (I think provocally here cannot refer to a negotiation in the future, as Kolbe says; even supposing ποιήσετε to be correct, the word would merely have the sense it usually bears in the formula ποιήσετε καλῶς προνοηθέντες, 'Please see to it that so-and-so is carried out').

So far as I see, then, Kolbe has not found the exception to my theory

necessary to prove his point. But I willingly admit that I ought not to have said that my view of these documents was 'free from doubt'; evidently it is not. Others must ultimately decide. But I would like to call attention to one thing which might easily be overlooked. The original difference between Kolbe and myself was over the question of the 'neutrality' of Delos, *i.e.* the use which a historian may legitimately make of the festivals; and if Kolbe were absolutely right in this paper, and if Delos were not a member of the League (and that depends on other considerations beside the grant of a site), it would not affect the more important first part of my article, that dealing with neutrality: all that would have happened would be that one illustration of the political activity of one holy place would be unfounded. Professor Roussel saw this when he accepted part 1 of my article while doubting part 2 (*R.E.G.*, 1924, pp. 350-1).

I greatly appreciate Kolbe's courteous wish that I would agree with him. I would willingly do so if I could; but I cannot see the question otherwise than I do. But I am glad to think that we can agree on a more important matter than Delos—the absolute necessity of upholding what we respectively believe to be the truth.

W. W. TARN.

A BRONZE MIRROR IN THE ASHMOLLEAN MUSEUM

[PLATE II.]

IN 1928 Sir Arthur Evans generously presented an archaic bronze mirror to the Ashmolean Museum in Oxford. My thanks are due to the Keeper, Mr. E. T. Leeds, for his kindness in inviting me to publish this interesting accession and supplying me with the photographs reproduced in Plate II and Fig. 1.



FIG. 1.—REVERSE OF MIRROR.

The mirror is in the form of a disk, 15 cm. in diameter: its thickness at the edge is 7 to 8 mm., at the centre about 5 mm. It weighs 675.5 grammes. The face, slightly concave, was of plain, burnished metal surrounded by a narrow ornamented band round the edge: it is now badly pitted and covered over the greater part of its surface by a green patina (Fig. 1). The back,

decorated by a simple and pleasing design admirably executed, also shows in many cases a similar patina. The illustrations render any description of the design superfluous. At the foot of the reverse side the surface of the mirror was left smooth, probably where it rested upon some support. A beautiful example of this type of mirror and its stand will be found in H. B. Walters, *Select Bronzes in the British Museum* (London, 1915), Plate XXXIV.

At the top of the smooth surface forming the mirror's face is engraved, in the retrograde direction, a votive inscription (Fig. 2):

Ζενοδόκα τῇ Περσεφόνει ἀνέθηκε.

ΞΗΘΕΙΑΙΑΗΘΞΙΘΞΠΙΑΤΑΤΟΔΩΝΞ+

FIG. 2.—FACSIMILE OF INSCRIPTION.

This is not the place, nor have I the qualifications, to enter upon a discussion of ancient mirrors in general or of Greek mirrors in particular. The subject has been repeatedly and fully treated, and I content myself with a reference to Miss G. M. A. Richter's account in *Greek, Etruscan and Roman Bronzes* (New York, 1915), 251 ff., and the article *s.v.* Katoptron in Pauly-Wissowa, xi. 29 ff., both of which contain useful bibliographies (cf. Πολέμων, i. 24).

For the dedication of mirrors to Greek divinities there is abundant evidence—literary, epigraphical and archaeological.¹

In a well-known and often imitated epigram of Plato (*Anth. Pal.* vi. 1), *Lais*, when her beauty wanes, is represented as dedicating

τῇ Παφίῃ τὸ κάτοπτρον, ἐπεὶ τοίῃ μὲν ὀρᾶσθαι
οὐκ ἐθέλω, οἷη δ' ἦν πάρος οὐ δύναμαι.

Julianus Aegyptius devotes three epigrams (*ibid.* 18–20) to the same topic. Philetas of Samos tells (*ibid.* 210) how, 'at the age of fifty years and more,'

Νυχὸς εἰς γῆν Κύπριδος ἐκρέμασεν
σάνδαλα καὶ χαίτης ἀνελίγματα, τὸν δὲ διαυγῇ
χαλκόν, ἀκριβείης οὐκ ἀπολειπόμενον,

and Leonidas of Tarsus records (*ibid.* 211) how Callicles consecrated in the shrine of Cypris various personal adornments τὸ χάλκεόν τ' ἑσπυπρον.

Epigraphical references are more numerous and more convincing. A recently discovered inventory of offerings in the temples of Halicarnassus mentions a κάτοπτρον among the sacred treasures of Δημήτηρ δημοσία and registers its weight.² In one of the sacred caves of San Nicolò above Buscemi, near the ancient Acræ in Sicily, an inscription of the Imperial period has been found³ recording the dedication of a mirror (which is here called λυμπρον

¹ I owe some of the references in this article to W. H. D. Rouse, *Greek Votive Offerings*, Cambridge, 1902.

² A. Maiuri, *Annuario*, iv/v. 463, No. 3, l. 24 = *S.E.G.* iv. 187. The first editor read καθύπερον, but the necessary correction

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was made by A. Wilhelm, *Glotta*, xiv. 78. The form of the word may be due to the influence of κατοπάζω.

³ P. Orsi, *Notizie*, 1920, 327 ff. On p. 329 '35 a. C.' is a misprint for '35 d. C.'

either by an error of the engraver or in accordance with the local pronunciation) 'Απόλλωνι καὶ Παῖδοις καὶ Ἀννα.⁴ But it is to Athens that we look for our fullest information. In an inventory of the treasury of Athena, dating from shortly after 385-4 B.C., a mirror occurs (*I.G.* ii. 1419. 6). The catalogue of offerings belonging to Athena and the other gods in 320-19 B.C. contains a list of eighteen mirrors stored in the χαλκοθήκη, some of them in a sorry condition (1469. 92 ff.; cf. 1464.23), while at least four more appear later in the same list (1469.142 ff.). The eighteen recur in the inventory of 318-17 B.C. (1471. 46 ff.).

[κάτ]ροπρον μικρόν οὐχ ὕψ[ι]ς· [ἕτερον κάτροπρον οὐχ ὕ-
γιές· κάτροπτα δύο χαλκᾶ ἐν ἐλύτροις, τούτων τὰ ἐλ]-
υτρα κατέργεν· κάτροπτα ἕξ ἀν[ε]υ ἐλύτρων· ἕτερα κά-
τροπτα μικρά ΓΙΙΙ ἀνευ ἐλύτρων.

Those to which the epithet μικρά is attached were not, I fancy, genuine mirrors intended for use as such, but models destined for votive offerings. Still larger is the number of mirrors dedicated to Artemis Brauronia. In the earlier lists issued by the curators of the Brauronium we find a κάτροπρον ἑλεφαντίνην λαβὴν ἔχον, dedicated in 347-6 B.C. by Aristodamea (1514.23, 1515.15, 1516.3),⁵ while later we come across a record (1517.192 ff.) of at least two and probably three, and again (1522.30; cf. 1524.257) of 119 genuine and an uncertain number of miniature mirrors. In the third century Asclepius possesses a κάτροπρον χαλκοῦν ἐπιθήμα ὀργυροῦν ἔχον (1534.196).⁶ Finally, in the records of the Eleusinian temple dating from the third quarter of the fourth century we find two mirrors mentioned (1542.24, 1544.58). It may be noted that, wherever the material of the mirror is recorded, it is of bronze, and the fact that bronze was normally used for this purpose is borne out by the majority of the archaeological finds as well as by Aeschylus' words, κάτροπρον εἰδούς χαλκός ἐστ', οἶνος δὲ νοῦ (frag. 393 ed. Sidgwick). Further, it is remarkable that in the Attic inscriptions the word is written twenty times κάτροπρον and only once (1471.46) κάτροπρον.⁷

Actual finds of mirrors, or of mirror-stands or handles, have been made in various Greek sanctuaries, such as those of Olympia⁸ and Dodona,⁹ the Athenian Acropolis¹⁰ and the Argive Heraeum.¹¹

⁴ The editor is in doubt whether in the Παις we are to see Demeter and Core or, as he thinks more likely, the Nymphs. 'The mysterious Anna' he regards as 'certainly of Oriental origin,' possibly Aphrodite but more probably Ἀρταρ Περωνή or Ἀναστ (Nott, 1899, 469; 1929, 329). But (a) the restoration ἐλ τῆς Ἀνα[στ] in Nott, 1899, 469, is to my mind far from certain, and, (b) though the language of the inscription is Greek, the names which occur in it are all Latin. Is it possible that we have here an outlying cult of the Roman goddess Anna Perenna? Cf. Pauly-Wissowa and Roscher, s.v.

⁵ Cf. 1517. 189 f., where [- ὀ]ρ[γ]υ[ρ]ιν[ε]ν

Νεβήν ἔχ-- may well be part of the same phrase. Mirrors do not appear in the fifth-century treasure-lists, unless we are to restore [κάτ]ροπρον in 12. 292a.3.

⁶ Wrongly attributed to Daskyl by Rose, *op. cit.* 253.

⁷ Cf. Monstachans-Schwyzler, *Grammatik d. att. Inschr.* §9 L.; O. Riemann, *Rev. Phil.* ix. 61.

⁸ *Olympia*, iv. 181 (A. Furtwängler).

⁹ C. Carapanos, *Dodone et ses ruines*, xxv. 1. Cf. S.G.D.I. 1399.

¹⁰ A. de Ridder, *Catalogue des Bronzes trouvés sur l'Acropole*, 81 f.

¹¹ U. Waldstein, *The Argive Heraeum*, ii. 204 ff. (H. F. De Cos).

But we must turn back to the Ashmolean mirror and ask whence it comes. Here we must distinguish between the place of its manufacture and the place at which it was dedicated: these may be, but are not necessarily, one and the same.

In the sixth century, to which the mirror must probably be assigned alike on artistic and on epigraphical grounds, Samos, Aegina and Corinth seem to have been the chief Greek centres of the metal industry, and it was probably in Corinth that most of the mirrors sold in the West were made.¹² But the western Greeks were not wholly dependent for their bronze ware upon external sources. A vigorous manufacture of such articles was carried on in South Italy at Taras,¹³ Rhegium and Locri Epizephyrri¹⁴: indeed, the excavations carried out at Locri have resulted in the discovery of mirrors and mirror-stands in such abundance as to suggest that they constituted a Locrian speciality and were manufactured on the spot,¹⁵ while some at least among them¹⁶ were of the disk type, intended to rest upon stands which provided a support at the bottom of the reverse side, just where, as we have seen, the decoration on the Ashmolean mirror is interrupted.

What light does the inscription throw upon the problem?

The fact that the donor's name is not accompanied by an ethnic suggests, though it does not prove, that she belonged to the state in which the dedication was made. The name Ζενοδόκη occurs only in the form Ζενοδόκη, borne, according to some MSS. of Pausanias (ii. 7.3), by a Sicyonian lady. Even the corresponding masculine Ζενοδόκος (once only Ζενοδόχος, *Plut. Alex.* 51) is by no means common, though more frequent, perhaps because more euphonious, than the alternative Δεξιφάνος. Ζενοδόκος occurs in Thessaly (*I.G.* ix.2.18, 122, 520), Phocis (ix.1.109) and Locris (*Fouilles de Delphes*, iii.1.442), at Delphi (*ibid.* 13, 17, 19, etc., iii.2.172), Tanagra (*I.G.* vii.283), Athens (ii².41, l. 19),¹⁷ Megara (iv².71, l. 34), among the islands (xii.5.36, xii.8.260, 274, xii.9.249) and in the Peloponnese at Corinth (iii.2.159), Hermione (iv.729), Epidaurus (iv².65, 96, 232, 245, 630) and Messenia (*Paus.* iv.5.10): one of Philip's *εταίροι* bore the same name (*Aeschines*, ii. 157).

The dialect of the inscription is Dorian or North-Western Greek, and its alphabet, in which the most noteworthy letter is +—ξ, was in use at an early period in Laconia, Arcadia, Elis, Achaia, Eastern Argolis, Thessaly, Boeotia, Phocis, Locris and Euboea, together with their colonies in the West. It is significant that the area thus indicated includes the great majority of the above-cited examples of the name Ζενοδόκος.

Persephone, or Kore, whose name varies more than that of any other Greek

¹² G. Glotz, *Ancient Greece at Work*, 133.

¹³ E. Pernice, *Jahrbuch*, xxxv, 83 ff.

¹⁴ W. A. Oldfather *op. Pauly-Wissowa*, xiii. 1300, 1363.

¹⁵ P. Orsi, *Notizie*, 1912 Suppl. 6 f., 1915 Suppl. 15 ff., 31 ff., 1917, 104; E. Petersen, *Röm. Mit.* xii. 118 ff.; A. de Ridder, *Rev. Ét. Gr.* xxxi. 267 ff.; E. Pernice, *Jahrbuch*,

xxxv. 93 f.; W. A. Oldfather *op. Pauly-Wissowa*, xiii. 1363.

¹⁶ *I.G.* those illustrated in *Notizie*, 1912 Suppl. 7, 1913 Suppl. 15, 18, 40; *Rev. Ét. Gr.* xxxi. 269; *Röm. Mit.* xii. 119.

¹⁷ Wrongly given as Ζενοδοκ in the Index of *I.G.* ii.

divinity,¹⁸ was widely worshipped throughout the Greek world, almost everywhere in conjunction with, and in subordination to, her mother Demeter.¹⁹ Her name appears not infrequently in inscriptions, but in almost every example known to me it is found either in metrical epitaphs, referring to her as queen of the under-world, or in imprecatory inscriptions. In a metrical dedication from Eleusis (*I.G.* P. 817) and in two from the Epidaurian Asclepieum (iv².551) she is associated with Demeter. Indeed, I can find but one prose dedication to Persephone alone, and that one comes from Italian Locri.²⁰

I have said that Persephone usually appears side by side with Demeter and in a subordinate position. Save at Taras, where she received a large number of votive terra-cottas²¹ she seems to have come off badly in the matter of dedications.²² But in one Greek city her cult was paramount, her sanctuary the richest and most magnificent,—and that city was Locri.²³

By three separate paths we have been led to Locri. I am far from maintaining that the Locrian provenance of the Ashmolean mirror has been proved, but I hope that a case has been made out for further inquiry. The decisive verdict will, I hope, be passed by one who has an unrivalled knowledge of Locrian antiquities, Senator Paolo Orsi.

MARCUS N. TOD.

¹⁸ O. Gruppe, *Griech. Mythologie*, 1181; Roscher, ii. 1286 ff. Cf. B. Koll, *Hermes*, xliii. 586.

¹⁹ See the list of 'Kultstätten' in Roscher, ii. 1288 ff.

²⁰ *I.G.* xiv. 631. The goddess is here called Περσέφωα (cf. Hesych. Περσέφωα, Περσέφωα, Ἀδμερῶς). I omit the enigmatic

I.G. xiv. 450 (Catana) and *J.H.S.* vii. 23 (Taras), which may be a dedication to Persephone.

²¹ A. J. Evans, *J.H.S.* vii. 23 ff.

²² Rouse, *op. cit.* Index.

²³ Pauly-Wissowa, xiii. 1356 f., Roscher, ii. 1308.

THE DEVELOPMENT OF THE SECOND SPARTAN EMPIRE (405-371 B.C.).¹

παρελήφασι γὰρ ψευδῆ λόγον, ὡς ἔστιν αὐτοῖς ἡγεῖσθαι πάτριον. This is Isocrates' judgment (IV. 18) on the claim of the Spartans to be the leaders of Greece. He rightly saw that the tradition of hegemony had been the force behind most of Sparta's active foreign policy for more than two hundred years down till his own day. He might truthfully have added that the hegemony exercised by contemporary Sparta was of a kind which Spartans no more than a generation earlier had never imagined. Though they had long desired to control all Greece, the particular form of control which they came to possess over the members of their second empire was determined for them by the Peloponnesian war.

Sparta did not enter upon that long struggle with the deliberate intention of creating for herself a subject empire. She desired to destroy the Athenian ἀρχή, which appeared as a threat to her own Peloponnesian league; and in opposition to Athens, she asserted a principle of city autonomy, which was to prove both then and later wholly incompatible with the conception of a subject empire. At the outset, the Spartans can have contemplated no higher success than that the Athenian democracy might be so humbled as to abandon part, at least, of its ἀρχή; and perhaps even to return to its earlier position as a member of the Peloponnesian league. But the war with Athens compelled Sparta to develop her social, political, and military organisation, and the conquest of Athens offered Sparta the temptation of securing a new kind of supremacy—not ἡγεμονία, but ἀρχή.

Until the early sixth century Sparta had tried to found an empire in the Peloponnese, when opportunities offered. Her method was simply to incorporate the territories of conquered peoples into her own territory. But with the admission of Tegea to alliance a momentous change came over Spartan policy. Thenceforward Sparta's aim was to create a league consisting of allied autonomous states, who looked to her for leadership in foreign policy, but were otherwise independent. The second Spartan empire was in part a reversion to the earlier theory, in so far as it implied that the supremacy of Sparta could best be secured by the subjection, not the affiliation, of states outside the Peloponnese.

¹ This essay was awarded the Craunse Prize for 1928 by the British Academy. The author wishes to express his acknowledgments to Wadham College, Oxford for the Richards Studentship, 1926, to the Old Bradfordians' Club of London for their

Drummond Studentship, 1926-7, and to Oxford University for the A. M. P. Read Scholarship, 1927. He is also indebted to the late Dr. J. Wells, Mr. M. N. Tod, and Mr. H. T. Wade-Gery for their criticisms and suggestions.

This reversion in policy was accompanied by an innovation in military organisation. When on campaign outside Laconia, Sparta's armies had always been led *only* by her kings or regents: a practice which continued unbroken into the Peloponnesian war.¹ But, during that war, the necessity of maintaining more continuous and more distant campaigns than her traditional methods would allow compelled Sparta to modify her military organisation and to evolve a type of commander known as a 'harmost.' These 'harmosts' at the end of the war were employed by Lysander to form the structure of the second Spartan empire.

To illustrate this, we must examine in succession the various Spartan officers during the Peloponnesian war whom our authorities call 'harmosts,' or whose function resembles that of those whom they call 'harmosts.'

THE PELOPONNESIAN WAR TILL 413

1. *The Harmosts of Heraclea.*

The first instance which offers itself from the period of the Peloponnesian war is the type of officer appointed by Sparta to govern Heraclea. In 426, Sparta received appeals for help against the Octaeans from Trachis and Doris, and decided to assist them. There were additional motives for the enterprise, because the neighbourhood was well situated strategically to command both Euboea and the road to Thrace (Thuc. III. xcii. 4). But Sparta chose a peculiar method for occupying a strategic base in North-East Greece. It was determined to found a colony open to the rest of Greece; yet Apollo's authority was obtained to make an exception by excluding Ionians, Achaeans and certain other tribes. This cumbersome process for achieving her object shows how unfamiliar Sparta was with imperial expansion. Certainly, in the fourth century, Sparta would merely have sent a harmost with a garrison of neodamodes to Trachis. It is worth considering whether the colonisation of Heraclea was not an embryonic instance of the same system.

Heraclea was governed by officers sent from Sparta:² a couple of later instances will confirm and illustrate this statement. In the winter of 420-19, Xenares, who had been Ephor in Sparta for the previous year (Thuc. V. xxxvi.), was ἀρχων in Heraclea, and was killed in battle (*id. li.*). He must, then, have been sent from Sparta at the end of his Ephorate. Xenares' successor at Heraclea, Ageasippidas, was sent back to Sparta (apparently before his term of office was completed) by the Boeotians, who, resenting Spartan influence in Northern Greece, had interfered on a plea of misgovernment in Heraclea. These

¹ There is one class of exceptions: *navarchai*, who were usually private individuals. (Probably Anchinolius, c. 512 B.C., was one of these, for he goes to Athens by sea.) The only individual exception is Euaenetus (Her. VII. 173), who commanded the reconquering expedition to Tegea (480 B.C.); he was ἡγὼν τῶν πολυτάκτων ἀποστράτων, but not of the royal

house, as Herodotus mentions with surprise. It is significant that at the only period before the Peloponnesian war, when Sparta had more commitments abroad than her organisation could meet, we find her traditional methods thus admitting of exceptions.

² cf. ἀρχωντὶ πόλεως τῆς Ἀσπιδωμένης οἱ ἀρχιστράται; Thuc. III. xciii. 2.

examples confirm the conclusion that the ἄρχοντες of Heraclea were Spartan citizens of high standing, and not natives of Heraclea. The use of the present tense (ἀρκυνοῦμενοι) in the verb, which Thucydides applied to them, seems also to suggest that they were changed with some frequency.

In 409, as Xenophon tells us (*Hell.* I. ii. 18), Labotes, ὁ ἐκ Λακεδαιμονος ἀμυστήης at Heraclea, was killed by the Octaeans. Clearly he was the ἄρχων of Heraclea at that period. It may perhaps seem rash to assume from this that all the previous ἄρχοντες were really harmosts,⁴ yet the probability is greatly strengthened if it can be shown that Thucydides was accustomed to call Spartan officers 'ἄρχοντες,' who might properly be designated ἀμυσταί.⁵ If so, we may take it as likely, that from 426 Heraclea was governed by a succession of magistrates called harmosts and sent (perhaps annually) from Sparta.⁶

In the autumn of the year in which Heraclea was founded, the Spartans utilised it for an expedition toward North-West Greece, on which they employed a new kind of commander. At an appeal from Aetolia they sent out against Naupactus an army, which was composed of 3000 allied hoplites, of whom 500 were from Heraclea (*Thuc.* III. c.). The commander was a Spartan, Eurylochus, assisted by two subordinates.⁷ Especially noteworthy is the choice of an ordinary Spartan, not a king, to command a military expedition abroad. This is the first clear instance known to us, and it is partly to be explained by the unusual fact that the soldiers, apart from his staff, were allies, or if Spartans by birth, at all events nominally Heraeleots. One may suggest as a conjecture (which cannot be verified) that Eurylochus was the new ἄρχων of Heraclea. For it should be observed that the expedition assembled at Delphi, where the forces from the Peloponnese and Heraclea would best meet: especially if their commanding officer came from Heraclea. In any case, Eurylochus from the nature of his command might have been called a harmost in the fourth century (*cf. infra*).

2. Megara: an Allied City garrisoned by Sparta.

The disaster to Eurylochus' force may have discouraged Sparta for a time from making similar experiments with non-royal commanders. However, in *Thuc.* IV. lxi. we hear of a different kind of Spartan force abroad. This is a garrison in Nisaea, consisting of 'Peloponnesians only' (i.e. not Megarians), with a Spartan ἄρχων. Thucydides in an ambiguous phrase says that this

⁴ But we have the precedent of Meyer, *Theopomp.* p. 117, for this assumption.

⁵ See Appendix on Thucydides' use of the term ἄρχων when applied to Spartan officers.

⁶ The evidence for (presumably) earlier harmosts in the Periclean *Hell.* is rather doubtful, but their existence may be regarded as probable. Compare Kahrstedt, *Gr. St.* I. p. 229, who, however, is apt to be rather too positive on the subject. Con-

trust Meyer, *Theopomp.* p. 269, who errs in the opposite direction. Kahrstedt (*ib.* p. 23, note 6) does not seem to prove his theory that Heraclea was in effect part of the Periclean.

⁷ They are an instance of the working of a *σάξ*, quoted by Thucydides (IV. xxxviii.), whereby under certain circumstances three Spartan officers were nominated, so that on the death of the senior officer, another might be ready at once to take his place.

limitation to Peloponnesian guards was βεβαιότητος ἕνεκα τῶν Μεγάρων. Evidently he means that they were nominally to protect Megara from Athens; but actually to guard against just such disloyalty to Sparta as did occur in this year. It would have been a typical position for a harmost and his garrison in later times, using the term 'harmost' in its most restricted and conventional meaning. There may have been other such garrisons set up in strategic points among the cities of the Peloponnesian league at this time, but we are not told of them.⁸ In any case, the presence of the garrison seems to be an infringement of the rights of a member of the Peloponnesian league. It was probably defended as a military necessity, but it was at least an anticipation of the methods of the later Spartan empire.

3. Brasidas.

Our next instance is Brasidas. We must consider (a) the nature of his army, (b) the nature of his position, (c) his methods in organising defence of Chalcidice.

In the summer of 424 B.C., the Spartans, exasperated by the Athenian occupation of Sphaacteria, had been roused to energetic action. They had devised a plan which would at the same time distract attention from Laconia by striking at the Athenian ἀρχή in a vital spot, and also relieve Sparta of its growing danger of a helot rising, by utilising or exterminating a large number of those dangerous subjects. The plan was that Brasidas should lead to Thrace an army of 700 helots: the force was also augmented by 1000 picked σύμμαχοι.

Concerning these σύμμαχοι, Thucydides uses a phrase which he does not use of the normal quotas of allied troops on annual campaign. Brasidas, he says, raised them προσῆλκεν.⁹ The distinction must be that, whereas usually each ally selected its annual quota for the common army, and paid its own expenses (for there was no common chest), in this case Brasidas offered a free invitation to any Peloponnesian whom he approved to come for an indefinite period at a stipulated wage—exactly the procedure in the average fourth-century mercenary army. Apparently Brasidas hoped to pay them from the proceeds of spoils and by contributions from the cities which he delivered.¹⁰ In emergencies he could, like many a fourth-century mercenary captain, hire out his army to earn its pay, e.g. with Perdicas (Thuc. IV. cxxiv. seq.).

⁸ When the Peloponnesian garrison was handed over to the Athenian generals by the men of Nisaea in 424 (Thuc. IV. lxxix. fin.), Thucydides implies that the Spartan δέσμων was not the only Spartan in Nisaea.

⁹ The only previous instance where this phrase is used of soldiers is Thuc. I. ix., where it refers to Aristous. There is an obvious parallel between the two leaders, the importance of which lies in this:—it shows that Sparta has adopted from Corinth an active policy of offensive warfare by

land. One may also compare the Corinthian officer and garrison in Ambracia (c. 425 B.C. Thuc. III. cxiv. 4) with the fully developed Spartan harmost. Diodorus actually converts him into a Spartan (XII. ix. 6).

¹⁰ Thuc. IV. lxxx. 1: since Perdicas was originally to have given half the ποσὸς of the army (id. lxxxiii. 6), presumably the Chalcidic league was responsible for the other half.

This plan of sending a Spartiate, as commander of a helot and mercenary army, roving much at his own discretion, was a serious departure from Spartan principles. Towards the home government Brasidas seems to have held for the time being complete freedom in leading his army hither and thither in τὰ ἐντὶ Θρᾷκης. He even went away to help Perdikkas, leaving behind him in Mende a Spartan ἄρχον, Polydamidas, in command of 500 Peloponnesians and a force of Chalcidians.¹¹ But there was one check on Brasidas: he was subject to a yearly inspection by a board of three commissioners sent from Sparta. An exact parallel to this procedure of inspection will be later cited in the case of Dercyllidas, who was certainly a harmost. Hence it is probable that Brasidas himself was also, properly speaking, a harmost.¹²

In 423 the commission was led by Ischagoras, who was to have brought with him an additional army which had been sent for by Brasidas (Thuc. IV. cviii. 6). But it was held up on the borders of Thessaly. However, the three commissioners came through, and, 'contrary to νόμος,' brought with them 'young men from Sparta to appoint ἄρχοντες of the cities, and so not to entrust them to any ordinary person' (IV. cxxxii.).¹³ They set up Clearchus in Amphipolis and Pasitellidas in Torone.

These local commanders are similar to Polydamidas, whom Brasidas had already set up in Mende, only that their appointment was not merely to allow Brasidas temporarily to leave Chalcidice. In having garrisons under them (Thuc. V. iii. for Torone) they resemble also the ἄρχον in Megara: only that here the βεβηκότης to be secured is more explicitly that of the town they garrisoned against its Athenian foes. Their general functions, also, recall those of the harmosts set up during the last few years of the Peloponnesian war, as will be shown later. Bernard Henderson (*Great War between Athens and Sparta*, p. 280) has seen in their appointment a violation of Brasidas' promise of autonomy to the cities, for Brasidas had originally insisted that the Spartan authorities must swear to leave autonomous any cities which joined him, and he had announced this fact in Chalcidice (Thuc. IV. lxxxvi.). Probably no violation of this oath was intended; but in practice the ἄρχον would be sure to take sides in the internal politics of his city, e.g. Polydamidas in Mende (IV. cxxx. 4). Already, as later in 405-4, Sparta's strategic methods show a tendency to become methods of imperialism.

Just before the battle of Amphipolis (autumn 422), the Spartan authorities sent out their second annual commission of inspection, led this time by Rhamphias, who also brought an army of 900 men to reinforce Brasidas. While stopping on their way to reorganise Heraclea (Thuc. V. xii.), the commission heard of the death of that great general. At the news they returned home. As soon as the peace of Nicias was signed, Sparta sent another commission of three to Clearchus, telling him to surrender Amphipolis. (Polydamidas and Pasitellidas had both been captured by the Athenians.) So, after delays, in the

¹¹ Presumably Brasidas, like Eurylochus, had only two Spartans with him as subalterns; this will, then, have been one of them.

¹² A fuller discussion of this type of har-

most is reserved till later.

¹³ On this voyage cf. Isocr. *Buciris* 18, and Naurn, *Classical Review*, Sept. 1929.

autumn of 421, Cleatidas brought back the remnants of Brasidas' expeditionary forces. The returned helots were given liberty, and soon a use was found for them along with the 'Neodamodes.'¹² They were placed as a garrison in Lepreum, which had been occupied by Sparta earlier in the year, to protect it from Elis. This force was often used later on service abroad.

The experiment of sending Brasidas had shown what was the proper method of disrupting the Athenian empire, and Brasidas by his high character and generous treatment of the cities had created a favourable attitude towards Spartans among the Athenian allies (Thuc. IV. lxxxi.). We shall see how Sparta took advantage of this attitude later, so as to set up *ἐπὶ χεῖρας* once more, but not to recall them on the conclusion of peace.

4. *Gylippus: a Spartan General on loan abroad.*

In the course of the Archidamian war, Sparta had shown herself on the whole a poor match for Athens. So, under King Pleistoanax, her policy of aggression was abandoned, and in the complexity of events, which filled the interval till the Decelean war began, she contented herself with maintaining her old position as leader of her own league. It was in 414, for the first time, that a Spartan commander was again sent out of the Peloponnese: Gylippus to Syracuse.

What was the official position of Gylippus? Was it the same as that of Brasidas? He was the only Spartan sent to Syracuse (Thuc. VII. lviii.). Unlike Brasidas, (1) he had not brought an army with him. But perhaps this is merely to be attributed to his hasty departure, which anticipated the raising of an army. Next spring, just such a force was sent as Brasidas had commanded (Thuc. VII. xix. 3). But (2) there is no sign that Gylippus was supervised by the Spartan authorities, as Brasidas had been. This omission may have been due to his great distance from home; but the terms of reference, whereby he was left to make his own arrangements on the advice of Corinth and Syracuse (Thuc. VI. xciii.), suggest that his responsibility, in part at least, was transferred to those states. (3) He co-operated directly with the Syracusans, and indeed appears to have acted as their supreme general, while Brasidas kept his own force and his generalship distinct from that of the Chalcidic league, though he was often reinforced by them.

It may be pointed out that Gylippus' position has certain affinities with that of Salaethus at Mytilene (Thuc. III. xxv.). Both arrived without armies, but both proceeded to take charge of the military operations of the besieged. If there is any difference between the two, it lies in the different relations of Lesbos and of Syracuse to Sparta. Lesbos had, at her own request, been made a member of the Peloponnesian league (Thuc. III. xv.). But this does not seem to have been exactly the position of Syracuse: rather Sparta was *her* ally.¹⁴

¹² Thuc. V. xxiv.; here mentioned for the first time.

¹⁴ The customary form used throughout the latter part of Thucydides' narrative is

at *ἐπὶ χεῖρας* viii of *ἐπὶ χεῖρας*, where the 'allies' evidently include, for instance, the helots and perioeci. Compare also Thuc. VII. lviii.—Sparta among the list of

So Gylippus was a commander on loan to a foreign Power (not an ally on the ordinary terms of the Peloponnesian league). Hence his position is not strictly in the direct line of Spartan imperial development; and the difference between it and that of Brasidas and Salaethus results from the dissimilar relations of Sparta with the cities of Greece proper which might become part of her empire, and with Syracuse which could not be made subject to her.

THE IONIAN WAR

I. 413-411. *The Setting-up of Harmosts.*

After the Athenian disaster in Sicily, Sparta found her outlook entirely changed. Athenian sea-power seemed annihilated: the cities of the ἀρχή were clamouring for Spartan expeditions to free them. Sparta had thrust upon her the opportunities for sea-power and empire, and through inexperience and divided counsels did not know how to use them properly. Agis in Decelea and the Ephors in Sparta were confused by the many conflicting appeals for assistance. They could not decide which to accept first; and when they did decide they chose differently. Yet they were unanimous in one thing: they both ultimately adopted the same *method* of assistance. For instead of merely freeing the cities, Sparta set up in each island or state an officer with a garrison. The method was identical with Brasidas' employment of the young ἀρχοντες in Chalcidice, as already mentioned. It may have been justified originally by strategic needs, but it became later a means of binding the cities into the Spartan empire.

We must now survey in turn the various instances of officers with garrisons. The first is when Agis, listening to appeals from Euboea, asked for two ἀρχοντες to be sent thither. They came with 300 neodamodes. But at the suggestion of the Boeotians, Agis changed his mind, and decided to send one of the two ἀρχοντες to Lesbos as "*harmost*" (Thuc. VIII. v. 2).

Agis had done all this without consulting Spartan headquarters. There Chios was chosen as the first objective. It had been intended to send the Spartan navarch, Melanchridas; but, after an ill-omened earthquake, this more traditional method was abandoned, and it was decided to send Chalcidene, one of the ἀρχοντες, who was to combine with Agis' force. The plan was: 'first to sail with Chalcidene as ἀρχων to Chios, then' (from there) 'to Lesbos with Alcamenes also as ἀρχων, and finally to reach the Hellespont: Clearchus had been appointed as ἀρχων there' (Thuc. VIII. viii.). The clear distinction of territorial spheres for the ἀρχοντες, none of whom was navarch, reminds one of the fully developed organisation of the Spartan empire, as shown in what our later authorities call the harmost. (For harmosts always have allotted to each of them a definite sphere of authority.) This scheme of operations was

Syracusan allies—and such later examples of commanders as Pharas (Diod. XIV. lxiii. 4; lxx. 1). Also note Diod. XIV. lxxix. 3: τῆς ἐν ἡμετέροις ὁρίων κατὰ τοὺς νόμους πο-

λοῦντο ἢ τοὺς κατὰ τὴν ὑπερσπολίαν ἐκαστὸν Κορινθίων ἢ τοὺς ἀργαυμένων τῆς Ἑλλάδος Ἰσπανίας, and Plut. Pelop. xxxi.

not completely carried out, though it determined the general lines of Spartan strategy till the battle of Cyzicus.

The plan was first frustrated because the Athenians succeeded in blockading the northern squadron under Alcarnenes at Spiraëum (Thuc. VIII. x.). But through Alcibiades' influence this did not prevent Chalcideus from sailing to Chios, where he was greeted by the news of cities revolting from Athens in all directions. Alcibiades persuaded him to go on to Miletus (Thuc. VIII. xvii. 2). But he must have been left behind at a garrison in Chios, for shortly we find a Peloponnesian land force, commanded by a Spartan Eualas, and a fleet under Deinadas, a perioec, joining with the Chians in an attack on Lesbos: the next objective according to the Spartan plan. This attempt failed; as also did another led by the navarch Astyochus, who landed a field-force with Eteonicus as ἄρχων.¹⁵ The Spartan plan was then temporarily abandoned.

Shortly afterwards Chalcideus, the real ἄρχων of Chios, was killed in a skirmish at Miletus (Thuc. VIII. xxiv.), and at no great interval a reinforcing fleet under Therimenes arrived at Miletus (Thuc. VIII. xxvi.). He had also on board Pedaritus, who was sent by the Spartans as ἄρχων for Chios (Thuc. VIII. xxviii.), while a second Spartan, Philippus, was to be set up in Miletus. If Pedaritus was sent in response to the news of Chalcideus' death, the Spartan authorities must have been unusually prompt. It is quite as probable, when taken in conjunction with Philippus' appointment, that the Ephors had been displeased by Chalcideus' desertion of his post at Chios and by his long stay at Miletus. Hence they had sent a man to take his place at Chios, and filled the vacant post, Miletus, in order to prevent the same desertion occurring again. Chalcideus' death in the meantime had simplified the situation.

On arrival at his post, Pedaritus found the navarch there. Astyochus proposed another expedition to Lesbos: but the Chians would not listen to the project, and Pedaritus, who had taken over command of the Chian fleet, refused point blank to let the navarch use it (Thuc. VIII. xxxii.). This incident is interesting as an indication of how a Spartan sent out on a separate command by the home authorities was not subject even to a navarch. Thucydides does not enlighten us on the nature of Pedaritus' command further than to call him ἄρχων. But Theopompus, probably correctly (*fragm.* 8, Oxf.), called him ἀρμοστής ἀνὴρ τῶν γεγονότων καλῶν in the second book of his *Hellenica*.¹⁶ So one would expect that the title ἀρμοστής should also be applied to Pedaritus' predecessor, Chalcideus, and to Philippus, who held a parallel appointment in Miletus.

Chios' further relations with Sparta till Aegospotami may be briefly summarised here. Pedaritus was killed during a siege by the Athenians: his post was taken by Leon, his father, when the city was relieved (Thuc. VIII. iv. 3; lxi. 2). A democratic revolution in favour of Athens must have occurred;

¹⁵ Thuc. VIII. xxii. 4. Alcarnenes had been killed at Spiraëum: Eteonicus was presumably his successor.

¹⁶ This mention must have occurred in an *ἐκκρούσις*, as Theopompus did not begin his narrative in the *Hellenica* till after the

battle of Cynossema, by which time Pedaritus was dead. Meyer has cleverly conjectured that it occurred in connexion with the operations of Pausanidas at Chios (Meyer, *Theopomp.* p. 100).

probably after the battle of Cyzicus. For in 409-8, Cratesippidas, the navarch, restored the oligarchia, and garrisoned the acropolis (Diod. XIII. lxx. 3). Perhaps the harmost was Eteonicius, who had been expelled from his post as harmost of Thasos during the previous year (Xen. *Hell.* I. i. 32). For he commanded the army at Mytilene in 406, which had been brought over from Chios, and returned there after Arginusae.¹⁷

In the spring of 411, Dercyllidas 'with a not large force' (οὐ πολλὰν στρατίαν: Thuc. VIII. lxi.) was sent, presumably from Miletus, to the Hellespont to make Abydus revolt. (This was a tardy substitute for Clearchus, who had not yet been sent to Byzantium.) He co-operated with Pharnabazus most successfully, so that the Athenians were compelled to fortify Sestos in order to keep control of the Hellespont. This appears to be yet another instance of Thucydides' omission of the title 'harmost': for Xenophon (*Hell.* III. i. 9) informs us, that Dercyllidas had been harmost of Abydus, but was disgraced in the year when Lysander was navarch. It seems evident that Dercyllidas remained in command of Abydus from 411 to 407 (Lysander's first navarchy); for Abydus was in Spartan hands throughout all the period, and must have been well garrisoned to remain secure, since the Athenians kept a squadron across the straits at Sestos.¹⁸

Later in the year Clearchus also was sent to Byzantium, of which Xenophon calls him the harmost (Xen. *Hell.* I. iii. 15). This caused the centre of strategic importance to move to the Hellespontine region, and Mindarus, who succeeded Astyochus about midsummer 411, sent his fleet thither.

2. *Sparta and Persia, 413-405 B.C.*

We have seen something of Sparta's methods in obtaining a strategic hold on the Aegean islands and Asia Minor. This process inevitably brought her into contact with Persia. So we must next consider the relations between these two Powers.

These relations had been determined by three treaties.

- I. The first agreement recognised ancestral possessions of the King, without defining them. This was framed before any harmosts had been sent to the mainland (Thuc. VIII. xviii.).
- II. The second was merely defensive and offensive: it shirked the question of territorial boundaries (Thuc. VIII. xxxvii.).
- III. The third (drawn up by Lichas through fear of consequences of the first) frankly admits that 'all the King's land, in so far as it is of Asia, is the King's.'¹⁹

¹⁷ Xen. *Hell.* I. vi. 18, 8, 26 and 37; cf. Parrot, *Mém. della reale Accad. di Torino*, LIX. (1909), p. 119 and note 6, who calls him 'dieu extraordinaire' exactly — appropriately.

¹⁸ It seems best to assume that when Xenophon says ἐν Ἀντιόχειν καταρχήσαντες, he means 407-6, since he himself carefully pointed out that Lysander was not allowed

to be navarch a second time (Xen. *Hell.* II. I. 7). Contrast Meyer, who dates Dercyllidas' dismissal to 404-3 (*Gesch. d. Alt.* v. § 789).

¹⁹ See the *Asiatic Treaty*: Thuc. VIII. (viii.) i.e. in opposition to any ancestral possessions, which had been in Europe. Compare VIII. xliii. Lichas' criticism of the first treaty.

Lichas apparently preferred a definite sacrifice to indefinite obligations. Also this treaty is much fuller in details, and is the only one which mentions Pharnabazus as included in its provisions.

It is here suggested as an hypothesis, which may be partially verified by later evidence, that the result of this third treaty with Persia was the withdrawal of all Spartan harmosts permanently resident in the cities of Asia Minor who were not immediately required for military purposes. Persia presumably recognised that it was necessary for the conduct of the war that Peloponnesian fleets under Spartan commanders should operate from strategic bases in Asia Minor itself. But the treaty meant that this concession was not to be extended beyond the practical necessities of the campaign, and was to terminate with it. Moreover, Sparta was not at any time to interfere in the internal government of the cities, nor to regard them as her sphere.

This restriction seems to have been more insistently applied in Tissaphernes' province than in that of Pharnabazus. But that is chiefly because of the strategic importance of the Hellespontine region, where it was necessary to hold two points especially—Abydos and Calchedon—against Athenian attacks. But even there, as will be shown, military operations were always carried out in co-operation with the Satrap, and he, not Sparta, accepted or resigned the government of any cities which had revolted from Athens.²⁰ In any case, Pharnabazus showed a particular eagerness to serve Sparta in the Peloponnesian war, while Tissaphernes was more apt to work craftily for his own ends.

The evidence on this subject, apart from the treaties, is necessarily in the main negative: i.e. the only resident officials known to us (except those in Abydos and Calchedon) are on the islands and not on the Asiatic mainland. Also Sparta appears to relinquish the mainland entirely at the end of the war, except for Calchedon: for which exception an explanation will be offered later.

But one piece of positive evidence can be cited. As we have seen, a Spartan, named Philippus, had been appointed to Miletus (Thuc. VIII. xxviii.), in a position parallel and exactly contemporary with that of Pedaritus in Chios: so presumably, like Pedaritus, he was a harmost. In Thuc. VIII. lxxxvii. we find him on an embassy to Tissaphernes at Phaselis, sent to await the promised Phoenician fleet. This raises the question: why had he left Miletus? He had not been a year in office: which seems less than the minimum for any official. Also, if he was superseded unusually soon, we never hear of any successor. Can this mean that Sparta had discontinued to appoint harmosts to Miletus because of the third treaty with Persia?

Now we find that Lichas, the drafter of this third treaty, had announced that 'the Milesians and the other inhabitants of the King's land must be the slaves of Tissaphernes, and behave properly, and seek his favour, till the war is well settled' (Thuc. VIII. lxxxiv. 5). This can only mean a surrender of the internal government of Miletus and the other cities to Persia for the duration of the war at least; and this in spite of the fact that the Milesians and the rest

²⁰ Compare above, how Pharnabazus accepted Abydos (Thuc. VIII. lxi. 1), and later resigned Calchedon (Xen. *Hell.* I. iii. 9).

had revolted from Athens to be the free allies of Sparta. It was this which enraged the Milesians, so that they would not let Lichas be buried where the Spartans wished.²¹

It is just at this point that we hear of Philippus on his embassy (i.e. giving up his military command), when the Spartan government must have abandoned control of Miletus. That it was abandoned there can be no doubt; for we learn from the same passage (VIII. lxxxiv.) that there was by then, actually in Miletus, a guard-house with a garrison of *Tissaphernes'* troops, even though Astyochus was operating from the same city as his base. This garrison will have been the substitute for Philippus' troops under the new (third) treaty.

Similarly, in the spring of 410, when the Spartans were vexed with Tissaphernes because he had failed to provide his promised Phœnician fleet, they let the men of Antandros borrow some troops from Abydos, and with them expel the Persian garrison in their city. The Antandrians made the excuse that they had been ill-treated by Arsaces, one of Tissaphernes' subordinates.²² Hence Tissaphernes himself came north to protest against this action, and against the fact that the *Persian* garrisons in Miletus and Cnidus, the Spartan naval bases in his satrapy, had been expelled by the local inhabitants, in spite of the presence of his Lacedæmonian allies (cf. Thuc. VIII. lxxxiv.). The Persian garrisons in Antandros, Miletus and Cnidus must have been established, since these cities revolted from Athens to Sparta, and therefore as a consequence of the third treaty with the Great King.

A survey of the Spartan harmosts in the Hellespontine region will illustrate how much Sparta depended on the Persian support, which by Lichas' treaty she had purchased with the betrayal of the Asian cities. The harmosts were Dereyllidas (cf. *supra*), who held Abydos against the Athenians at Sestus till he was disgraced on the accusation of Pharnabazus; and Clearchus in Byzantium. To these there was added Hippocrates in Calchedon some time before 408 (Xen. *Hell.* I. iii. 5). We may conjecture when he was installed there, and why.

Hippocrates had been Mindarus' ἐπιστολεύς (Xen. *Hell.* I. i. 23); we last hear of him as sending the famous dispatch announcing the defeat at Oxyzicus and Mindarus' death. It was about the same time that the Athenian στρατηγοὶ fortified Chrysopolis near Calchedon, and left Theramenes and Eumachus there with 30 triremes to hold the Bosphorus and levy the δέκαρχοι. Pharnabazus, who was reorganising a Spartan fleet at Antandros, at once went to help Calchedon (Xen. *Hell.* I. i. 26). Xenophon does not say more; but this would be the best occasion for Hippocrates, now without a fleet, to occupy Calchedon, and prevent it falling into Athenian hands, just as Dereyllidas was holding Abydos. In any case, Pharnabazus evidently controlled the matter.

Similarly, when Calchedon was attacked by the Athenians in 408 (spring), and Hippocrates was killed, Pharnabazus, apparently without reference to Sparta, agreed to surrender the town to the Athenians, and let it pay them its customary tribute and arrears. The surrender of Calchedon was followed

²¹ Thuc. VIII. lxxxiv.; contrast xxxvi.: οἱ Μιλήσιοι ἐπρόβουον τὸ τοῦ πολέμου ἔσπον, just before the second treaty.

²² Thuc. VIII. cviii. 4 seq., Diod. XIII. xlii. 4, who makes his usual error of substituting Pharnabazus for Tissaphernes.

by the fall of Byzantium: so Abydos remained as the only town on the Hellespont, garrisoned by Sparta (Diod. XIII. lxxviii. i.). Hence the centre of Spartan activity returned to the Ionian coast, and the arrival of Cyrus at Sardis gave new opportunities of assistance from Persia.

During the next three years the Spartan navarchs alternated in their attitude towards Persia and the Greeks in Asia. Lysander formed an extensive association with the oligarchs in the allied cities, and an intimate attachment to Cyrus; both of which connexions were to be of importance later in his career. He seems to have been the first navarch to make Ephesus his base in Asia Minor, probably because it was convenient for access to Sardis by the King's Road. Callicratidas, his successor, in disgust at Persian haughtiness, transferred his headquarters again to Miletus; and while there he made a speech in the democratic assembly, in which he urged 'all those who have suffered most misfortunes at the barbarians' hands, through dwelling among them,' that they should strive to bring the war to a speedy conclusion. He promised them adequate compensation in the future (Xen. *Hell.* I. vi. 8). It is clear that this recompense was to take the form of Spartan help against Persian domination, and some modification in the terms of Lichas' treaty. Perhaps there was a party in Sparta which disapproved of concessions to Persia; or it may have been only Callicratidas' whim to pose as a champion of Hellenism. In either case the battle of Arginusae showed that Sparta's only hope lay in a continuation of Lysander's policy. Lysander was sent again to Asia, and the base of Spartan operations was removed once more to Ephesus.

3. *Summary of Results concerning Harmosts before Lysander.*

It may be better to stop here and summarise what has so far been concluded about the harmost. We have shown that there is abundant evidence for the existence of harmosts before the setting up of the Lysandrian system of empire. Of our two contemporary authorities, Thucydides only uses the term once; but Xenophon applies it three times to Spartan officers in command of separate forces operating by land *from a particular city*; and twice to mere Spartan governors in cities abroad. The two varieties of harmosts are evidently one and the same, varying only in so far as they are, or are not, directly engaged in the conduct of the war.

If we accept it as likely that the ἀρχοντες of Thucydides are often really harmosts, a line of development emerges reaching from the young ἀρχοντες set up in Amphipolis, Torone, and Mende by Brasidas to the Spartan officers who roused the Athenian empire to revolt in 413, and occupied strategic points in it till 405.

The chief defect in our information about them is that our authorities tell us only about the salient points of the campaign: the less important spheres are omitted, except for chance references. For instance, Alcibiades in 407, when returning to Asia Minor, landed on Andros, and defeated the rebel inhabitants and τοὺς Ἀσκαῶνας οἱ αὐτόθι ἦσαν (Xen. *Hell.* I. iv. 22). This must mean a Spartan garrison, presumably with a harmost. But it is our only reference to Andros, and serves merely to show how we are not really aware to

what extent, during Athens' weakness, especially in 411, her empire had been permeated with Spartan garrisons, which continued even after Athens had regained control of the sea.

We cannot gauge to what degree the harmost system, which we know of in 404, had already come into being. The function of these harmosts, however, had been as yet purely military; to guarantee the security of their districts. But probably they were driven to interfere in the domestic politics of their cities, and particularly to support the pro-Spartan party, who were usually the oligarchs. That even during the Decelean war the citizens were not usually unanimous for Sparta may be inferred from the instances of revolts.²³ We learn that Chios and Erythrae (Thuc. VIII. vi. 4), and presumably the other cities which revolted from Athens, had been specifically made allies of Sparta. This should have conferred on them the rights of members of the Peloponnesian league. Hence Sparta's action in installing harmosts is rather high-handed; though it can be paralleled, as a war measure, by the garrison at Megara in 425.

LYSANDER'S EMPIRE

1. *Introduction.*

The battle of Aegospotami completely changed the outlook of Sparta. Hitherto all Spartan military and naval actions, including even the introduction of garrisons, could be covered by the one all-embracing excuse that they were necessary for the overthrow of the imperialistic tyranny of Athens. With the almost total destruction of the Athenian fleet this pretext largely vanished. It is true that Athens did not capitulate at once; but the previous safeguards—garrisons and harmosts—were not now required. The question faced Sparta: were they to be done away as quickly as possible?

It is interesting, if rather fruitless, to conjecture how different might have been the policy adopted if Sparta had triumphed a year earlier, at Arginusae, instead of at Aegospotami. For the decision lay almost entirely in the hands of the navarch alone, who had won the victory. It was Lysander, and not Callicratidas, who held the opportunity; and one cannot doubt that he had long made up his mind how to use it. While acting as Treasurer in Cyrus' absence (406-5, Diod. XIII. civ. 5, Plut. *Lys.* VIII.), he had shown at Miletus that he would stick at nothing to secure oligarchies.

But Lysander had also to determine whether those who had been subjects of Athens were to remain as subjects to a new mistress, or whether they were to be treated like the other allies of Sparta. He chose to create a new class of client states, quite distinct from the Peloponnesian league, and to bind them to Sparta by a system of harmosts, which he adopted from the harmosts of the Peloponnesian war.²⁴

Lysander's first step was to secure the Bosphorus by placing a harmost,

²³ Chios (Thuc. VIII. xxiv. 6, xxxviii. etc.), Thasos (Xen. *Hell.* I. i. 32), and Byzantium (Xen. *Hell.* I. iii. 18: where the issue was complicated by famine, but

Clearchus had been harsh, Diod. XIII. lxxvi. 6).

²⁴ Cf. Basolt-Swoboda's *Griechisches Staats- und Rechtsaltertümer*, p. 1323.

Sthenelaus, over Byzantium and Calchedon (Xen. *Hell.* II. ii. 2). This would help to reduce Athens by starvation. Then Lysander turned back, and proceeded to capture the remaining outposts of the Athenian empire, to expel her cleruchies, to reconstruct the internal government of her subject allies, and to restore the cities which the Athenians had destroyed.

Unfortunately we are in no position to form a complete survey of his operations. Of our ancient authorities, Xenophon gives no general description, but only a few scattered details with many omissions. Isocrates usually mentions the Spartan empire in unfavourable comparisons with the former Athenian empire, and is apt to write rhetorical generalisations. The rest of our authorities fall into two classes, according as they interpret Lysander's motives. Diodorus represents Lysander as the instrument of general Spartan policy;²⁵ Nepos and Plutarch definitely state that Lysander was chiefly actuated by a personal ambition for power.²⁶ This divergence may be partly explained by the fact that Nepos and Plutarch were writing personal biographies of Lysander, but the close parallelism of their narratives shows that they go back to a common source.²⁷ But it is not so much to our purpose here to consider Lysander's motives as the scheme which they produced.

2. *Lysander's Empire in general.*

(i) *Decarchies and harmosts.*—For this purpose it will be best (i) to consider the general character of this Spartan empire as a whole, (ii) and then to proceed to examine the particular places in its organisation whose history is known to us.

It may be taken as a basic assumption that Lysander set out to secure all Athens' empire. For this purpose the harmost with his garrison was to become not a strategical convenience of war, but a permanent institution of peace. He would guarantee the loyalty of each πόλις or group of πόλεις to Sparta, usually by maintaining a pro-Spartan oligarchy in power. This oligarchy, in some cases at least, was so limited as to consist of only ten men.

We cannot find any harmost left in Asia Minor, with the doubtful exception of Sthenelaus, harmost of Byzantium and Calchedon. Probably the original third treaty with Persia was still in force: in any case Lysander, the close friend of Cyrus, was prepared to surrender Asia Minor to his ally.²⁸ He tried to treat Pharnabazus in a more audacious manner in 403 (late summer probably), by

²⁵ *E.g.* Diod. XIV. xlii. 1, *ἐκαστὴν πόλιν τῆς ἡμετέρας γῆρας*.

²⁶ *E.g.* C. Nepos. *Lys.* I. 5, in *sua* temperet *potestate*. Plut. *Lys.* XIII. *κατασκευάζων τούτῳ τῆς τῆς Ἑλλάδος ἡγεμονίας*.

²⁷ Probably Theopompus is the original authority favourable to Lysander: for in the 10th book of his *Hellenica* he took occasion to praise Lysander's industry and self-restraint (Plut. *Lys.* XXX., and Athen. XII. 543b = *Frags.* 214 and 6 Oxf.). Ephorus, on the contrary, sought to explain

Lysander's conduct by his passion for supreme power, and so brought forward the story of his attempts to overthrow the Heraclid kings by working the oracle (Plut. *Lys.* XX. and XXV. *seq.*). Probably therefore, Ephorus is the common source unfavourable to Lysander. Cf. Schwartz, *Quaestiones ex hist. Graec. saec. quart. desumpt.* Rostock, 1893.

²⁸ Cf. *supra*, and compare Isoc. IV. 122, which may be taken literally as referring to the end of the Peloponnesian war.

ravaging his land near the Hellespont.²⁹ But on Pharnabazus' complaint Lysander was recalled by the Ephors.

To try to prove that the Asian cities remained ungarrisoned by Sparta after the war, we may cite the Athenian decree, dated 403-2 B.C. (Ditt. *Syll.*³ 117). In this, among other matters, the Athenians praised the Ephesians and Notians for their kindly reception of the Samian exiles. It is incredible that these cities would have welcomed those whom Lysander expelled, if they were at the time held down by Spartan harmosts. Yet no city in Asia Minor was more appropriate to receive a harmost than Ephesus—Lysander's original base in Asia. Since it was free to oppose Sparta's plans, it is probable *a fortiori* that other Asian cities were equally unhindered by harmosts.

A precise answer to the question, where in the ἀρχὴ Lysander left harmosts and decarchies, and where harmosts without decarchies, or merely ungarrisoned oligarchies, is precluded by our lack of evidence. Xenophon and Isocrates both choose decarchies as the typical form of constitution in Lysander's time; and Plutarch goes even further, and says, ὁμοίως ἐν τε ταῖς πολέμασι καὶ ταῖς συμμάχοις γεγενημέναις πόλεσιν (*Lys.* XIII.). This cannot be true of all the 'allied' cities, for the Peloponnesian allies' rights were not infringed: at the most it applies to those that had at some time been subject to Athens, and so were liable to drastic reorganization at Lysander's hands. Diodorus much more cautiously says, ἐν αἷς μὲν δεκαρχίας, ἐν αἷς δὲ ὀλιγαρχίας καταστήσας (XIV. xiii.). So it will be more prudent to assume that, though oligarchies were set up everywhere, decarchies were rather the typical, than the essential, constitution for Sparta's subjects. Athens itself, though made subservient to a rigid oligarchy, had no more restricted a governing body than a τριακονταρχία (cf. *Xen. Hell.* VI. iii. 8). Yet, as Ferguson has pointed out (*C.A.H.* V. p. 367), the Ten in the Piræus may be regarded as a decarchy: for by the demolition of the Long Walls, Athens and the Piræus had become practically two cities.

The only other particular decarchy of which we are told is that in Samos set up by Lysander in 404 (autumn). It was accompanied by the appointment of a harmost. One cannot, however, assert that every harmost maintained a decarchy: Callibius at Athens is at least a partial exception.

The institution of the decarchies became the immediate occasion for very violent deeds. Plutarch (*Lys.* XIII.) represents Lysander as assisting in person at the massacres and expulsions of the democrats. Isocrates (IV. 113) says that the decarchs put to death more men in three months than Athens during the whole time of her empire.³⁰ This may be a piece of rhetorical exaggeration; but it is not surprising, if the oligarchs in the empire generally, as at Athens, took an ample revenge for their previous suppression by the democrats. These massacres may also, as at Athens, have led to the fall of the extreme oligarchies by turning the attention of Sparta toward the weaknesses of her imperial system.

²⁹ ἄγορας καὶ στρατός: *Plut. Lys.* xix., i.e. presumably he had freely commandeered supplies for his troops.

³⁰ The figure 'three months' is probably

not meant as an exact estimate of the period during which the decarchies were in power, but only as a guess at the duration of their first massacres.

There were in addition other causes. The only statements bearing on the later history of the decarchies in general are to be found in one passage in Xenophon and one in Plutarch. The former tells us that when Lysander accompanied Agesilaus to Asia he hoped 'to set up again the decarchies, which he had set up (before) in the cities, but which had been expelled by the Ephors, who had proclaimed the ancestral constitutions' (Xen. *Hell.* III. iv. 2). Evidently by this time (396 B.C.) the decarchies had been for some while completely abolished, as we also learn from Xen. *Hell.* III. iv. 7 (οὔτε δημοκρατίας ἐπὶ οὐσῆς ὥσπερ ἐπὶ Ἀθηναίων, οὔτε δεκαρχίας ὥσπερ ἐπὶ Λυσάνδρου). These statements may be accepted literally: it is a mistake to assume that some decarchies were still existing because the Boeotians in their speech at Athens (Xen. *Hell.* III. v. 13: τυραννοῦνται ὑπὸ δέκα ἀνδρῶν) still (395 B.C.) speak of them in the present tense. This, like other statements in that speech, is a rhetorical distortion, intended to cast odium on the Spartan empire.

Plutarch narrates how, after his recall from Thrace in 404-3 (winter), Lysander was in disgrace, and went to Cyrene on the excuse of a pilgrimage to Zeus Ammon. 'The Kings in his absence agreed together that by holding down the cities with harmosts he was absolute lord and master of Greece: so they began to effect a return of political power to the citizens.' These accounts are really in substantial agreement, for it was the Ephors who had control of foreign affairs, and probably the Kings worked through them. (E.g. in 403 (summer), Pausanias had to persuade a majority of the Ephors to let him lead out the expedition to Athens (Xen. *Hell.* II. iv. 29.) Plutarch, as we saw already, used sources rather unfavourable to Lysander, and had already stated that 'he did not appoint the rulers (the decarchs) for high birth or for wealth, but favouring the members of oligarchic clubs and those who were his guest-friends' (Plut. *Lys.* XIII.). This is probably true in the main, and if so, the Kings will have acted not unnaturally from fear of Lysander's extraordinary influence.

But it is rather difficult to accept Plutarch's chronology, since, according to him, Lysander was able to return and go to Athens in the early summer of 403 with unabated authority. Hence it is better on this question of chronology to follow Diodorus, who mentions the disgrace and the pilgrimage without mentioning the decarchies in this connexion. He dates this to 403-2: which suits admirably. Then Pausanias' intervention at Athens in the summer of 403 will be the first and not the last instance of the kind: and the restored democracy will perhaps have been a precedent to the later proclamation of πατριοὶ πολιτεῖαι. If this latter date is adopted, the decarchies lasted at longest 405-402; and their abolition was accompanied by a tendency towards more democratic government. The degree of this movement towards democracy may be gauged by a passages from the so-called Herodes, *περὶ πολιτείας*,³¹ where the speaker contrasts the Spartan empire very favourably with the cities of Thessaly: ἄλλ' ὀλιγαρχίαν ἀπανταχοῦ καθιστᾷσι τοιαύτην γὰρ οἷον ἡμεῖς εὐχόμενοι πολλὴν χρόνον - - - ἀφῆρέθημεν· ποῦ γὰρ οὕτω μικρὰ πόλις, ἐν ᾗ τὸ τρίτον μέρος οὐ μετέχει τῶν πραγμάτων αὐτόθι; (xxx.).

³¹ Apparent date about 401.

This may, however, be rather exaggerated to suit the rhetorician's point. Also there is no evidence of any withdrawal of harmosts.

Perhaps one illustration of this combined reorganisation by the Kings and Ephors is to be found in the fragmentary inscription from Delos, which gives the concluding words of an ordinance controlling the temple-finance with the names of Agis, Pausanias and the five Ephors appended.²² As the original editor showed, this must date between 404 (the end of our Ephor-lists) and 398 (the death of Agis). It is more likely that such a measure of reorganisation occurred soon after the overthrow of the Athenian empire: hence 403-2 is the most convenient year. Though Spartan official documents were usually signed by the Kings and the Ephors (to judge from the peace of Nicias, Thuc. V. xix.), yet it is tempting to interpret the presence of these particular names as a manifesto of the renewed power of the Kings in the empire.

When we turn from the decarchies to the harmosts, it is evident that we can learn little explicitly from our authorities about the harmosts appointed by Lysander himself; even their generalisations on the subject are very meagre. For instance, there is no explicit reference in any of our authorities to prove that Lysander originally provided his harmosts with garrisons. Yet this can be assumed, as without some military force under them they would have been of no use. The only statement of any particular novelty which later writers made about Lysander's harmosts was to assert that some of them were helots. We find this first stated in the speech of the Boeotians to which reference has already been made (Xen. *Hell.* III, v. 12). Isocrates also says that the decarchs 'chose to be the slaves of a single helot so as to wreak their violence on their native cities' (Is. IV. 112). Sauppe thought that this helot was Lysander himself, who, according to such a late authority as Aelian, was a μόδοξ. But it seems much better to interpret it as referring to each of the single harmosts whom the decarchies courted.

Thus we find two contemporary writers speaking of helot-harmosts. Yet it is scarcely possible to take this literally, and assume that Lysander left garrisons in the empire under the command of a helot. The obvious explanation is that these harmosts were really neodamodes. As we have seen, these were enfranchised helots, and were much used in distant expeditions. Hence it is not impossible that Lysander, whether from lack of others to appoint or from deliberate purpose, in some places used neodamodes as harmosts. It was to prevent just such a contingency that the first commission of three sent to Brasidas brought with them young Spartans as governors (cf. *supra*). Xenophon and Isocrates may have been thus far right, that these harmosts had once been helots, and were perhaps still kept in a distinct and inferior position. We find them brigaded separately in war, and at one time living at Lepreum, instead of sharing in the Spartan *συσσίτια*. But no particular instance of a neodamode as harmost is recorded.

The function of harmosts in the Spartan empire can be paralleled to a certain extent from previous Greek empires. Thus Corinth, as we learn from

²² First published by Homolle, *Bull. Corr. Hell.* III. (1879), p. 12.

Thuc. I. lvi, used annually to send magistrates, known as ἐπιδημιουργοί, to Potidaea. But this parallel is more apparent than real. For (a) Potidaea was at least a colony of Corinth; (b) we have no evidence that the ἐπιδημιουργοί were provided with any military force; or even (c) that they ever exercised any great influence on the local form of government. A much closer parallel is provided by some of the more exceptional modes of organisation in the Athenian empire. This comparison was traditional, since Theophrastus, as quoted by Harpocration, said that 'so far as names went, it was much better to say, as the Spartans did, that they sent ἀποστολάι to the cities, not ἐπισκόμοι or φύλακες, as the Athenians'. But judging from what we know from other sources, the ἐπισκόμος was not exactly a parallel to the harmost. He was a political officer appointed (probably only temporarily) to investigate and organise the internal government of a state subject to Athens. His duty was rather to define and set up the required constitution than to maintain it. Hence in the inscription from Erythrae the duty of maintenance falls not on the ἐπισκόμος, but on a προύρπαρχος. This official seems to approximate most nearly to the Spartan harmosts; but he appears to have been very exceptional. Because the Athenian empire had been won only by a process of gradual development, we do not find Athens interfering to an equal extent in the government of every city under her. Sparta, on the other hand, started almost afresh on the organisation of all her overseas empire, and forced every part of it into much the same system. It does not seem in the least likely that the regular Spartan harmost was modelled on the occasional Athenian προύρπαρχος. Rather they were both products of the same cause—the need to control the internal government of subject cities. This need was present from the first and continually in the Spartan empire: it was late and perhaps only sporadic in the Athenian.^{22a}

(ii) *Tribute*.—The other feature common to both these empires—tribute—was also forced upon both by circumstances; and in this, too, the need fell most heavily on the Lacedaemonians. For when Sparta had taken over the Athenian empire, she was compelled to imitate Athens and maintain a navy. This was a new expense for her; for the navy of the Peloponnesian league had, as a rule, been largely supplied by Sparta's allies. Also, since the fleet had been operating on the Asia Minor coast, most of the pay for the seamen had been provided by Persia. Now that the war was ended, Sparta would have to depend on her own, and not on her allies' ships, and must support herself.^{22b}

But apart from the fleet and the other expenses of empire, Sparta was particularly handicapped by her antiquated use of iron currency, and by her discouragement of all forms of wealth, except real property. The Spartan state

^{22a} Contemporaneously with the second Spartan empire, Dionysius I of Syracuse was building up a system of προύρπαρχοι and garrisons to control Sicily and Magna Graecia. But as he was not at all concerned with maintaining even a nominal independence in his subject cities, outside Syracuse, his προύρπαρχοι are not parallel to Sparta's harmosts.

^{22b} Sparta had even guaranteed to repay to Timaeophanes, as soon as the war was ended, all the subsistence which Persia had provided (cf. the third treaty, Thuc. VIII. lxxiii. 6). But we do not hear that this claim was raised by Persia in 403-2. On the contrary, Lysander was even given the surplus, presumably by Cyrus' generosity (cf. *infra*).

had been conducted on the principle of personal unpaid service. Lysander saw clearly that this method could not maintain her empire.

For raising a tribute of money, Sparta may have had certain precedents. At the beginning of the Peloponnesian war, for example, Thucydides tells us, that among the other commands laid on her allies, one was ἀργύριον ῥητὸν ἐτοιμάζειν (Thuc. II. vii. 2): but we do not hear that this was ever actually obtained. Also at times (especially during the later years of the war), Spartan commanders in need of money had raised it by intrigue (Lysander from the oligarchs: Diod. XIII. lxx.), or by patriotic appeals (Callicratidas from the Milesians: Xen. *Hell.* I. vi. 8), or by threats of the consequences of failure to pay (Eteonicus from the Chians: Xen. *Hell.* II. i. 5). But the new attempt was on a scale quite unprecedented, and consisted in founding an exchequer proportionate to the size of Sparta's new empire.

From scattered allusions we can gain some idea of its principles:—

(i) Lysander in 404 brought back to Sparta the spoils and gifts from the allied cities, "and 470 silver talents, the surplus from the tribute which Cyrus had assigned him for the war" (Xen. *Hell.* II. iii. 8). This will have formed the initial capital. For we learn from Justin (V. x. 12) that Sparta did not let her original allies share in the spoils of war; and when they claimed their portion, it was refused.

(ii) In one case, at least, she went further; for at the commencement of the Elean war (402 or 399 B.C.) she sent an ultimatum, demanding that Elis pay the expenses of the war against Athens, according to the portion which fell to her (Diod. XIV. xvii. 5). We do not know whether she managed to exact this also from others of her weaker Peloponnesian allies.

(iii) The cities of the new empire were all required to pay a tribute.²⁴ Diodorus tells us that it reached a total of more than a thousand talents a year (Diod. XIV. x. 2). If this round figure is not a gross exaggeration, it means that Sparta exacted at least as much as Athens at the height of her power, and from a smaller area, since Asia Minor was excluded.²⁵ (Presumably the members of the old Peloponnesian league were free.)

(iv) Of the method of assessment, we learn from Aristotle (*Ath. Pol.* XXXVII. 3), that the remnant of the Thirty at Eleusis were required συντελεῖν ἀπὸ τῶν προσιόντων εἰς τὸ συμμαχικόν, καθάπερ τοὺς ἄλλους Ἀθηναίους,

²⁴ Cf. Isocr. XII. 67; Polybius VI. xlix. 10.

²⁵ This figure may be shown to be not too grossly improbable, if our estimates very roughly the minimum Spartan expenditure in some year for which figures are available: e.g. 399-8 B.C.

(i) Wages for 8000 soldiers (Xen. *Hell.* III. i. 28: i.e. 6000 Cynians, Xen. *Anab.* VII. vii. 28 + 2000 Ionians, Diod. XIV. xxxvi. 2) at 1 daric per man. = 66 000 darics = 400 tal. (Attic).

(ii) A fleet of 135 triremes (so 402-1, Xen. *Anab.* I. iv. 2) with wages

at 3 ob. each man = not less than £10 tal.

To this minimum total of 610 tal. must be added the other lesser expenses of the war (in addition to wages), and perhaps the cost of maintaining the garrisons in the cities occupied by harmasts (cf. Xen. *Hell.* II. iii. 13; Athens as an exception). Of course, the Spartans managed largely to recoup the expenses of their Ionian war by the booty taken. But unless the expedition was a sheer gamble, they must have had enough income already to face the expenses. In later years the Ionian war increased still more in cost.

This seems to show that the tribute fell directly on the treasuries of the cities, and was not a tax on imports and exports—the latest method in the Athenian empire. The Spartans changed the name from φόρος to συντέλεια, if Aristotle was verbally accurate.²⁶

Plutarch has given an account of the controversy occasioned at Sparta by the introduction of all this new wealth. Apart from his anecdote about Gylippus, we learn that one Sciraphidas (so Theopompus), one Philogidas (so Ephorus), proposed to the Ephors that the silver should be sent away from Sparta; just as later, many quoted the Pythian oracle ἄ φιλοχρημαστία Σπάρταν δλεῖ, ἄλλο δὲ οὐδέν.²⁷ But Lysander's friends resisted this proposal: so it was finally agreed that silver and gold money might be owned publicly, but not privately on pain of death.²⁸ Sparta did not mint coins to pay her troops, but used existing coinages.²⁹

To sum up, garrisons, harmosts and tribute were the chief features of the permanent organisation of the Spartan empire as founded by Lysander. Hence it is interesting to note that in the famous inscription, which was the charter of the second Athenian confederacy, a special clause forbids the setting up of these three detested tokens of imperialism: μήτε φρουρᾶν εἰσδεχομένῳ, μήτε ἀρχοντα ὑποδεχομένῳ, μήτε φόρον φέροντι. The Spartans had not succeeded in using these methods in such a way as to justify their use in the eyes of their subject allies. All these three methods, also, can be paralleled to a greater or less degree from the Athenian ἀρχή. But the resident ἀρχων was the most prominent feature in the Spartan empire, and in later times the title harmost was used by historians with a special and exclusive reference to those set up by Lysander. We may now survey the various districts in which we hear of these harmosts.

3. *Lysander's Empire in detail.*

(i) *Byzantium with Calchedon.*—After the appointment of Sthenelaus, nothing more is heard of Byzantium till 403-2 (Diod. XIV. xii.), when, after a στάσις and a war with the Thracians, it applied for a Spartan general. Evidently Sthenelaus' appointment had been mainly required to starve out Athens by holding the Bosphorus, so he was probably withdrawn when Athens capitulated. Byzantium would have no occasion to ask for a στρατηγός if there was a Spartan harmost still in residence. Clearchus was sent in answer to this request: though Diodorus does not call him a harmost, it is evident that he was one. On his conduct it is more prudent for once to trust Diodorus and Polyænus rather than Xenophon, who seems to have distorted the actual facts in his efforts to show only the best side of his friend's character.³⁰ Clearchus had been bidden 'to arrange the affairs of the city':³¹ his drastic methods

²⁶ It is assumed here that Baloch is incorrect in identifying I.G. V. i. as a Spartan tribute-list, 404-398 B.C.

²⁷ Cf. Aristotle, *fragm.* 544, Rose.

²⁸ Cf. also the penalty on Thorus (*infra*).

²⁹ Did Sparta use and encourage the issue

of coins from newly-conquered Argina? Cf. Xen. *Hell.* V. ii. 21.

³⁰ πῶς μὲν φλοισκάσας ἦν: Xen. *Anab.* II. vi. i. *seq.*

³¹ ἀποτάσσοντα τὸ κατὰ τὴν πόλιν: Diod., *loc. cit.*

produced a reign of terror; he acted like a tyrant, and since he would not heed instructions from Sparta, Panthoidas was sent as 'general,' and expelled him. Panthoidas is sometimes regarded as a navarch; and there is certainly a space vacant on our navarch-lists. If he is identical with the Panthoidas in Tanagra after 378 B.C. he must have been a rather young navarch.⁴² He may have been the new harmost to succeed Clearchus; Diodorus uses the same title (στρατηγός) for both.

In 400-399, winter, there was another harmost at Byzantium called Cleander. He sailed with two triremes as far as Calpe to meet and convoy the Ten Thousand. Shortly afterwards he was succeeded by Aristarchus, who arrived just before the navarch also was changed. Aristarchus, again with two triremes, sailed to Perinthus to prevent the Ten Thousand from crossing to Asia Minor. These facts give one some conception of the district and the force at the harmost's disposal.⁴³

The harmost of Byzantium had also at this time a garrison (φρουροί: Xen. *Anab.* VII. i. 20) in Calchedon, as in the time of Sthenelaeus. This is the only exception known between 405-400 B.C. to our generalisation that there were no Spartan garrisons in Asia Minor during that period. Even here it seems as though the harmost controlling the garrison was stationed on the European shore at Byzantium. This partial exception is somewhat accounted for by the urgency of holding this strategic point; for the later years of the Peloponnesian war had shown that even if a power held Byzantium, it could not completely shut the strait. But the justification of this apparent breach of Lichas' treaty probably lies in the fact that in 409 Pharnabazus had solemnly resigned all claim to Calchedon in favour of Athens; hence, after 405 Sparta, when she had conquered the city from Athens, would claim the same privilege (Xen. *Hell.* I. iii. 9).

E. Meyer (*G.d.A.* §761) is surely too rash in assuming that Sparta held with a garrison such places as Parium, Cyzicus or Abydos at this period, simply on the ground that during a time of peace the Spartan fleet could call at these ports.

No further harmosts of Byzantium are mentioned expressly by our authorities: one may perhaps be conjectured. Xenophon (*Anab.* V. i. 15) mentions with satisfaction in a digression that Dexippus, a deserter from the Ten Thousand, 'was put to death by Nicander the Spartan for meddling somehow with Scythians in Thrace.' This must have occurred after 399 and before Spartan control in this neighbourhood ceased. For it sounds like the execution of the sentence imposed by some Spartan official. It will be shown later that there is no convenient vacancy in the Chersonese, the only other harmost-centre which we know of in this neighbourhood. Hence Nicander may have been harmost at Byzantium between 399 and 394. For presumably it was held till the general expulsion of harmosts after the victory of Cnidus 394-3.

⁴² Plutarch, *Pelopidas*, 15; Poralla, *Presop. d. Lak.* No. 383, accepts this identification. Compare Pareti, *op. cit.* p. 127.

⁴³ Cf. Polyam. II. ii. 3, that Clearchus had 4 triremes; perhaps his district was larger (cf. *infra*).

It is not expressly mentioned as revolting, but was certainly free before Thrasybulus' arrival in 390.⁴³

(ii) *The Thracian Chersonese*.—Lysander expelled the Athenian cleruchy from Sestos, probably in 405, immediately after the battle of Aegospotami. But he did not let the native Sestians reoccupy it (Plut. *Lys.* XIV.): instead he placed there a settlement of his own ex-steersmen and ex-boatswains. This, we are told, was the first act of Lysander against which the Spartans rebelled. They brought back the Sestians to their own land, presumably in 402-2, during the reaction against Lysander. We must suppose that Lysander's colonists were recalled. As late as 394-3 there were men 'who held their land in the Chersonese because of the Spartans' (Xen. *Hell.* IV. viii. 5). The more likely interpretation is that these were not the Lysandrean colonists; but the native Sestians, reinstated in what had been lately an Athenian and then a Lysandrean cleruchy. (Presumably also the original inhabitants were allowed to return to the other similar cleruchies of Athens when Lysander expelled the Athenians to hasten the fall of Athens by adding to the number of Athenian mouths to be filled.)

We hear of no harmost in this region in Lysander's time, nor even when Clearchus was sent to Byzantium; and his commission, according to Xenophon (*Anab.* II. vi. 2), embraced οἱ ὑπὲρ Χερσονήσου καὶ Περίνθου Ὀρῶντες, which ought to include what a harmost of the Chersonese would normally have governed. In 400, however, there was a definite harmost of the Chersonese, Cymiscus (compare Xen. *Anab.* VII. i. 13, and ii. 15). His appointment will have been part of the Spartan policy of protecting the Greeks against the Thracians, which preceded the policy of protecting them also against the Persians. We do not hear of his being superseded nor yet of his continuing in office into 399: probably he was recalled without successor, for in the winter of 399-8 the inhabitants of the Chersonese petitioned Sparta for help. The later vicissitudes of the district do not concern us now.

The Chersonese and Byzantium appear to be the only harmosts' posts in this region. Also it is worth noting that while the enemy of Sparta in this neighbourhood is Sathes or some other Thracian chief, the Chetsonese is occupied by a harmost; but whenever Persia becomes the enemy, the harmost controls the Hellespont from the Asiatic side at Abydus, while still being expected to protect the Chersonese.⁴⁴

(iii) *Lesbos*.—This was the first place after Byzantium which Lysander visited in 405. Xenophon (*Hell.* II. ii. 5) says, κατεσκευάσατο τὰς τε ἄλλας πόλεις ἐν αὐτῇ καὶ Μυτιλήνῃ. While this cannot be interpreted so as to give the precise form of organisation which he set up, yet a harmost in Mytilene, at least, seems likely: it had of late been the centre of pro-Athenian activity in the island. This is confirmed by the statement of Diodorus (XIV. lxxiv. 3), that in 394 in the general revolt from the Lacedaemonians the Mytilenians expelled their garrison. But the harmost probably retained his hold on the

⁴³ It takes part in the issue of SYN coins: contrast Beloch, III. I. p. 77.

⁴⁴ As in the case of Dercyllidas in 394-3, Xen. *Hell.* IV. viii. 3.

rest of the island. For in 390-89 Thrasybulus found all the towns but Mytilene under Therimachus, ὃς ἄρμοστής ἐτύγγανεν ὧν τῶν Λακεδαιμονίων. In the ensuing battle Therimachus was killed, but Thrasybulus only secured some towns, not all.⁴² The island probably remained thus till 386.⁴³

(iv) *Chios*.—It had been occupied by Sparta before 405. According to Isocrates (VIII. xcviii.), it had been deprived of its fleet; but he may only mean that it was compelled to fight by sea, as Isocrates is writing rhetorically (cf. Diod. XIII. lxx. 2). It remained oligarchic down to 398 and later. For in that year Dercyllidas besieged the exiled Chian democrats at Atarneus (Xen. *Hell.* III. ii. 11). In 394 (Diod. XIV. lxxxiv. 3), Χίοι τὴν φρουρὰν ἐκβαλόντες προσέθεντο τοῖς περὶ Κόνωνα. So at least, then, and probably during all the ten preceding years, it had had a garrison, and therefore also some kind of harmost. It remained free henceforth.

(v) *Samos*.—After it had been taken by Lysander (404), he set up a decarchy with Thorax as harmost and a garrison. Plutarch (*Lys.* XIV.) tells us that in their later antagonism to Lysander the Ephors put Thorax to death for having money in private possession. This probably was connected with the overthrow of the decarchies in 402. There is no evidence forthcoming for the form of government which continued after this, nor even for a Spartan garrison. Perhaps it remained faithful without these precautions, for Lysander had expelled all the Samian democrats. It is not mentioned in 394 as revolting from Sparta; but it joined in the issue of Συμπεσυχικόν coins usually assigned to that year. It cannot, at any rate, have remained for long anti-Spartan, for in 390 Teleutias (Xen. *Hell.* IV. viii. 23) was able to gain reinforcements for the Spartan navy there.

(vi) *The Restored Cities*.—The restoration of Aegina has already been mentioned. Lysander also restored the Melians and the rest of those who had been deprived of their own cities (Xen. *Hell.* II. ii. 9). Plutarch (*Lys.* XIII.) specifically adds the Scioneans to the list, and we may add the Histiaeans; for Oresus in Euboea now returns to its old name, Histisea, with the expulsion of the old Athenian cleruchy, and is loyal to Sparta during the fourth century, when all the rest of Euboea is hostile. Potidaea and Torone may also be conjecturally added on analogy (Meyer, *G.d.A.* § 743), and because they now resume the issuing of coinage.

It is possible that in each city so restored a Spartan ἄρμοστής with a garrison was installed: certainly these refounded cities might seem to need someone to organise them,⁴⁷ and also to guarantee them against future Athenian aggression. We may confirm this conjecture by the one secure instance of Aegina: in 395, spring, there was there a harmost—Chilon (or Milon) (*Hell. Oxyrh.* I. 3)—with a trireme at his disposal. This was at a time when no considerations compelled the presence of a harmost for purposes of war. It is, then, fair to assume, that he or his predecessors had been in Aegina since 405,

⁴² Ereus and Aetolia, Diod. XIV. xciv. 4.

⁴³ Cf. *Schol.* to *Aristophanes*, *Ecol.* 102, Xen. *Hell.* IV. viii. 31.

⁴⁷ Cf. *Schol.* ad *Arachn.* II. 77: περὶ οὗ

στασιάζουσιν πάλιν ἄρμόστει (sc. οἱ Λακεδαιμόνιοι), ἐπὶ τούτοις αὐτοῖσι σφῶν ἐρχόμεθα δι' ἐκείνου ἄρμοστήν, πρὸς τὸ ἀρμόζειν τὴν πόλιν καὶ μὴ εἶναι στασιάζειν.

and all the other restored cities may have been similarly treated: Histisea, at least, had a harmost, Aristodamus, in residence some time before the battle of Leuctra (Plut. *Anat. Narrat.* III.); as it seems difficult to place him in the only other available period, 379-376, he may well have been there between 405 and 386. But this story is of a romantic character, and does not contribute seriously to our historical knowledge.

Of the restored cities Melos is the only one whose harmost will certainly have been expelled before 386. Pharnabazus and Conon landed on it in 393 (Xen. *Hell.* IV. viii. 7), and must have expelled the Spartan governor, if there was one.⁴⁸

(vii) *Other Islands and τὰ ἐνι Θράκης*.—Nisyrus and Ceos revolted from Sparta in 394 (Diod. XIV. lxxxiv. 3): there is no other evidence that they were garrisoned, or that they had been visited by Lysander.⁴⁹ Of course, many of the other islands probably had harmosts in residence, but they cannot be precisely discovered from our lack of evidence.

In 405, after settling Lesbos, Lysander sent Eteonicus to Thrace, ὃς τὰ ἐκεῖ πάντα πρὸς Λακεδαιμονίους μετέστησεν (Xen. *Hell.* II. ii. 5). Eteonicus had had experience of the neighbourhood, having been expelled from his position as harmost of Thasos in 409 (cf. *supra*). Nepos (*Lys.* II.) and Polyaeus (II. xlv. 4) tell how Lysander himself arranged a massacre of Attic supporters in Thasos, after first lulling their suspicions. This may have been in 403 (late summer), at the same time as Lysander besieged Aphytis in Chalcidice (Plut. *Lys.* XX.). It is not likely that harmosts were set up in the cities of the Chalcidic league, but only in those which had been subject to Athens during the latter stages of the war. Probably Thasos remained under a Spartan garrison till 394-0 B.C., when the pro-Athenian party led by Ecphantus expelled the Lacedaemonians, and later handed over the city to Thrasybulus.⁵⁰

(viii) *Greece Proper.* (a) *General situation*.—Neither Xenophon nor Diodorus, our chief authorities, tell us of any harmosts set up in Greece proper, except for Callibius at Athens: of whom we may note in passing, that here at any rate the oligarchy was first set up, and the harmost was not sent till later, at the request of the Thirty.⁵¹

The silence of historians is in startling contrast to Demosthenes' lurid picture. In sketching the situation before the battle of Haliartus (XVIII. 96) he says: Λακεδαιμονίων γῆς καὶ θαλάττης ἀρχόντων, καὶ τὰ κύκλω τῆς Ἀττικῆς κατεχόντων ἄρμοσταις καὶ φρουραῖς, Εὐβοίαν, Τάναγραν, τὴν

⁴⁸ I cannot follow Beloch (III. I. 78, note 1) in extracting any facts about Melos' relations with Sparta from Isocr. *Agôn.* 18, 19. For the expulsion of the conjectured harmosts in the restored cities of Chalcidice, cf. *infra*.

⁴⁹ For Ceos, cf. *infra*.

⁵⁰ Dem. XX. 59, *Schol. ad Aristid.* III. p. 85 (Dind.); cf. Beloch, III. 99, note 2, and I.G. II² 1, 24, with Wilhelm, *Revue Vindobon.* p. 241 seq. There must have

been some harmosts in τὰ ἐνι Θράκης to account for the 'harmosts from Europe' who took refuge with Doreyllidas (cf. *infra*). Probably Iacholans (Polyaeus, II. xxii.) was a harmost here, and fought against Chabrias in 390-89. Cf. Schäfer, *Demosthenes* (ed. 2), p. 43, note 5, and I.G. II. 22. The alternative date would be about 378.

⁵¹ Xen. *Hell.* II. iii. 33, and Aristotle, *Ath. Pol.* xxxvii., who dates the settling even later, after the occupation of Phyle.

Βοιωτίαν ἀπάσαν, Μάγαρα, Αἰγίναν, Κέω, τὰς ἄλλας νήσους, οὐ ναῦς οὐ τεῖχη τῆς πόλεως τότε κεκτημένης. Can we put any trust in this rhetorical outburst? There is some exaggeration even in the statement that Athens had no ships: Lysander had left behind twelve triremes (Xen. *Hell.* II. iii. 8). As for harmosts, Aegina is correct, and possibly Euboea, even apart from supposing a harmost in Histiaeae. In 424, Megara had a Peloponnesian garrison like that to be found with a harmost: we have no other evidence, but a harmost at this time is just possible. Ceos is never mentioned elsewhere, but that need not cause surprise. Yet granting all this, what is to be made of 'Tanagra, All Boeotia'? The *Hellenica Oxyrhynchia* in its accurate account of Boeotian government for this year never mentions any foreign garrisons: nor do the Theban delegates at Athens before the battle of Haliartus, though their speech is full of wild accusations against Sparta (Xen. *Hell.* III. v. 8). This much at least of Demosthenes' description simply cannot be believed: the only excuse possible is that he was confusing the situation in 395 with the similar circumstances in 379 and later.

A far sounder account is contained in the so-called Herodes, περὶ πολιτείας 28:—πότερον οὐχ ὀρώμεν τοὺς πλησιαιτάτους ἡμῖν (Thessaly) προσοικούντας τῶν Ἑλλήνων Φωκέας ἐλευθέρους ὄντας, προσεχομένους δὲ Βοιωτοὺς οὔτε φόρον φέραντας ἐκείνοις (Sparta), οὔτε ἀρχοντα (= harmost) οὐδένα Λοκεδαίμονίων αὐτοῖσι, ἔτι δὲ διὰ πλείονος Κορινθίων — — —, Ἀχαιοὺς δὲ πρὸς τοῦτοις, Ἡλείους δὲ καὶ Τεγεάτας καὶ τοὺς ἄλλους Ἀρκάδας; This omits Euboea and Megara: which may be a confirmation of the presence of harmosts there.

There were certainly no harmosts in the Peloponnese, 405-395, except Lysippus at Epitalium (Xen. *Hell.* III. ii. 29). He was appointed during the war with Elis, when, at the end of his summer campaign, Agis left behind a garrison in Elis as an asylum for Elean exiles, and as a base for raiding expeditions. This war with Elis showed Sparta's determination at the same time to make the Peloponnese secure, and yet not to degrade any of the existing states from their position as allies to that of subject cities under harmosts. For Lysippus' post was only a war-measure, and was given up when Elis capitulated.

(b) *Lysander at Athens*, 403.—In Sparta's struggle against Thrasybulus in 403, a new type of harmost appears to be used. Lysander at the appeal of the Thirty arranged for a loan to them of 100 talents, and that he should be sent out by land as harmost, and Libys, his brother, as navarch. So he came to Kleusis and began to gather many Peloponnesian hoplites (Xen. *Hell.* II. iv. 28). This is the first instance in which the chief commander of a considerable force is called ἄρμοστής by one of our authorities. It is clear that Lysander's function was in some ways similar to that of previous harmosts. He was in command of a Peloponnesian (i.e. allied), not a Spartan, force; and the general account suggests that, like Brasidas, he was raising them *μισθῶ πείσας*.⁶² In this he forms a contrast to Pausanias, who, though reinforced with allied con-

⁶² This was the use to which the 100 talents were put: later Xenophon (*Hell.* II. iv. 30 *fin.*) speaks of Lysander's force as of *μισθοφόροι*.

tingents, led out at least two morae of Spartans (Xen. *Hell.* II. iv. 33). At Pausanias' arrival Lysander by Spartan νόμος (Thuc. V. lxxvi. 3) became subordinate. Therein lay the sting of Pausanias' intervention.

What, then, was Lysander's position? Was he a successor of Callibius and in a parallel position? This does not seem likely. For (i) Callibius does not seem to have been superseded. At least, after the Ten in the city had appealed to Sparta, he was still in Athens helping them (Ar. *Ath. Pol.* 38). Unfortunately, as Lysander's appointment is not mentioned in this passage, one cannot be quite certain that this was subsequent to it. (ii) Lysander does not behave like a successor. Instead of taking over Callibius' force, he stays at Eleusis, collecting mercenaries. We never hear of him entering Athens. His function was to conquer the Piræus, not to guard the δόρυ. (iii) All previous harmosts of the type of Callibius have been required, either to remain in their district, or, if it was still uncaptured, to capture it and then remain in it. It is improbable that Lysander wanted to occupy such a position. One had better, then, regard this as one of a class of instances where the term harmost is applied to the commanders of large armies with considerable, though not unlimited, discretion, operating apart from one particular city. In fact, Lysander's mission, as well as his method of collecting his army, was more like that of Brasidas. The type of command is clearly illustrated in later generals, like Thibron, who also was expressly called ὁρμοστής. Also in 395, during the campaign of Haliartus, Lysander seems to occupy a similar position, though no authority gives him a title. He is sent out with a few soldiers (Diod. XIV. lxxxi. 1) to rally Phocis, while Pausanias again leads out a royal army of Spartans to meet him.

(c) *Some later harmosts on the mainland.*—If we take the passage from the *περὶ πολιτείας* quoted above as a true account of the conditions on the Greek mainland in 401-0, the apparent date of the speech, there are only a few alterations required to make it true for 394.

i. The writer of the speech omitted to mention Heraclea. In 399 the Spartans sent Herippidas to their old colony, καταστήσονται τὰ πράγματα (Diod. XIV. xxxviii. 4, cf. Polyæn. II. 21). He had a garrison with him, and executed 500 suspects, besides leading an expedition against the Octaeans. It is not said that he succeeded any previous harmost: so he might have been the first since Labotas was killed (cf. *supra*). But it is not likely that Sparta failed to keep an officer in a place strategically so important. His successors may have kept a garrison; for in 394 (spring), when the Boeotians took Heraclea, 'they slew the Spartans, but let those from the Peloponnese depart with their property' (Diod. XIV. lxxxii. 6). But perhaps, though less likely, Diodorus is writing loosely, and means merely to distinguish the Heracleots of Sparta from those originally belonging to the other Peloponnesian states.

ii. On the same expedition the Boeotians also attacked Pharsalus, which was προϋπομένη ὑπὸ Λακεδαιμονίων (Diod. lxxxii. 6). This will have been a harmost and garrison put into Pharsalus some time after 401-2, to assist Lycophrone of Phæae: probably in 399 at the same time as Herippidas' reorganisation of Heraclea (cf. Beloch, III. i. p. 25).

iii. On their return the Boeotians invaded Phocia, and defeated a Phocian army 'under the leadership of Alcisthenes the Spartan.' He is probably a remnant of Lysander's ill-fated expedition of the previous year: perhaps his second in command.

iv. In the summer of 394 there was a Spartan mora on garrison duty in Orchomenus, half of which fought under Agesilaus at Coronea.⁵³ The other half may have remained throughout the Corinthian war to protect Orchomenus against Thebes, for we learn that by 391, at any rate, Orchomenus was still independent (Andoc. *de Pace*, XX.). We may also note that there is no mention of a harmost. In fact, our authorities never call the commander of a mora (properly termed πολέμαρχος) a harmost, nor do they ever represent a harmost as commanding a mora or any other unit of Spartan, as opposed to allied, troops or neodamodes. This distinction between the harmost and the regular officers of the Spartan army confirms the theory that the harmost is in origin and function extraordinary, being produced to meet the exceptional requirements of the Peloponnesian war.

(d) *The Corinthian War*.—Sparta's object in the Corinthian war was not to extend, but to defend, her empire. Boeotia had provoked the issue by invading Phocia, which must have been a Spartan ally; and though Sparta had been willing enough to take a good excuse for crushing Thebes, she would not take the initiative, and after Haliartus she would have been content to rest. Hence it was Sparta's strategy to hold the Peloponnesian end of the Isthmus by occupying the important points with a polemarch and a mora, and the nearer allied towns with harmosts, while the King led raiding expeditions annually into enemy territory.^{53a}

A couple of incidents illustrate the position of these harmosts.^{53a}

i. An attack which Iphicrates made on Philus compelled that city, against its usual practice, to apply to Sparta for a garrison, and hand over its acropolis to safe-keeping. Xenophon (*Hell.* IV. iv. 15) remarks on the fact that the Spartans on this occasion did not attempt to restore their friends the exiled oligarchs. This shows that though in this instance Sparta probably appointed a harmost as her officer, she still treated her Peloponnesian allies with too much respect to overthrow their established governments.

ii. About the same time, Iphicrates attacked Sicyon, where a Λάκων ἑμποροῦντις was in command (Polyaenus, III. ix. 24). The mora which had been stationed there (Xen. *Hell.* IV. iv. 7) was now advanced to Lechaenum (*id.* v. 7): so a harmost with a smaller garrison, probably not of Spartiates, had taken its place.⁵⁴

The same strategical object was achieved by sea from Aegina. It was held successively by Eteonicus, Gorgopas and Eteonicus again. Probably both were harmosts, though only Gorgopas is specifically so called (Xen. *Hell.* V. i. 5).

⁵³ Xen. *Hell.* IV. iii. 15: it had been sent through the Isthmus, Plut. *Ages.* xvii.

^{53a} Cf. the harmost at Decolia, c. 405 a.c.,

Dem. XXIV. 128.

⁵⁴ He has to ask for reinforcements from Sparta: Polyaenus, *id.*

These harmosts all appear to be appointed owing to strategic necessities; they were not meant to impair the sovereignty of the states in which they were stationed.

SPARTA AND ASIA MINOR, 405-386

1. *The Campaigns of the Harmosts.*

There remains this one sphere of Spartan activity, which we have left entirely unmentioned since 405. The situation in Asia Minor was very favourable to the Spartans, when in 403 Cyrus, their firm ally, returned as Κόραυς. Perhaps they thought that it would be even better if he were to become Great King. For when he appealed to them in the name of his past services, they told their navarch 'to obey him, as it might be required' (Xen. *Hell.* III, i. 1). It is more difficult to believe Diodorus when he says that Cheirisophus and his contingent of 800 men, who joined the expedition of the Ten Thousand in Cilicia (Diod. XIV. xix. 5), were really sent openly and officially from Sparta.⁵⁵ One may imagine that this was another instance of the Spartan apophthegm: 'οἱ κε τόχουμέν, δευροσίγα, οἱ δὲ μὴ, ἰδοῖα.' At least, Sparta had shown herself such a partisan of Cyrus that his failure inevitably brought on her the displeasure of the Great King.

In the latter half of 400, Tissaphernes returned with a power equal to that which Cyrus had held, and prepared to reconquer the cities of Asia Minor, which had supported Cyrus. There can be no doubt that since Cyrus' return in 403 these cities had all been nominally subject to the Great King, not free or subject to Sparta; for we find (Xen. *Anab.* I. i. 6) that Cyrus has his own garrisons and φρούραρχοι in them.⁵⁶ So also in 403-2 Cyrus was still paying to the Great King the tributes from the Greek cities, even from those which Tissaphernes happened to be holding: e.g. Miletus (Xen. *Anab.* I. i. 8). The Asiatic cities in general had preferred to support Cyrus.⁵⁷ Hence Tissaphernes had to recover control of these parts of his new satrapy. But the cities took refuge in an appeal of the Spartans that, 'since they were the champions of all Hellas, they should take care also for the Hellenes in Asia.'⁵⁸

After Tissaphernes had disregarded Sparta's protests (Diod. XIV. xxxv. 7), Thibron was sent as harmost with 1000 neodamodes and 4300 allied troops (*id.* and Xen. *Hell.* III, i. 4). It is not our business to narrate the long succession of campaigns which ensued, but to emphasise those parts of them with a bearing on Spartan organisation.

(i) Thibron, like Lysander at Athens in 403, is called a harmost, though he is in command of a large army operating in a wide area.

⁵⁵ Contrast Xen. *Anab.* I. iv. 3: παράπαιτος ὁπὸ Κόρου, ἐπικρατοῦσι ἔχουσιν ἐπὶ ταῖς, but this may be deliberately reticent. Compare also for further references concerning Clearchus, Meyer, V. iv. § 833.

⁵⁶ Compare Meyer, V. iv. § 761, who admits this, and so has to assume that Spartan harmosts were set up in Asia, 405-4, and were withdrawn again by 403. In fact

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they had never been set up.

⁵⁷ ἐπιμαρτυρήσας καὶ σφόδρα τοῖς ἐν τῇ Ἀσίᾳ Ἑλλήνας (Xen. *Hell.* III. i. 3), i.e. in addition to the Greek islands and mainland, which as yet made up the whole of the Spartan empire.

⁵⁸ Xen. *Hell.* III. i. 3. Contrast the attitude of the rest of Greece, Isocr. V. 95.

(ii) The direction of his operations in this area lies to a certain extent with the Ephors. For instance, the home authorities, dissatisfied with his failure at Larissa Aegyptia (spring and early summer, 399), required him to transfer his army to Caria (Xen. *Hell.* III. i. 7).

(iii) The Ephors even superseded him while he was preparing to leave Ephesus for Caria. It is not quite certain whether he was deprived of his full year of office: at any rate he was fined and exiled (*ib.* 8). It appears as if one of the complaints against Thibron was that in his conduct of his war he let his troops ravage the territory of Greek cities (cf. Xen. *Hell.* III. i. 10 and ii. 1). The Spartan authorities at this time showed themselves considerate towards their fellow-Greeks, especially those under danger from barbarians, whether Persian or Thracian.

Dercyllidas improved on his predecessor's methods. Partly to satisfy a personal grudge, he led the army back to Aeolis to attack Pharnabazus. Presumably he had some private understanding on the point with headquarters. (We may note in passing that Dercyllidas is never specifically called harmost by Xenophon: but in view of the fact that Xenophon applies the title to Dercyllidas' predecessor, and to one of his successors, it will be assumed here that he also was a harmost, and that the fact that no technical title is applied to him may be regarded as purely accidental.) In the spring of 398 a commission of three Spartans inspected Dercyllidas, exhorted his army, and told him to continue in command for another year (Xen. *Hell.* III. ii. 6). The procedure is the same as that employed with Brasidas. The commission traversed Asia Minor from Abydos to Ephesus: so they probably made a thorough investigation of the minor harmosts, if there were any in the cities as yet.⁵⁹

Dercyllidas, at the request of the Greeks of the Thracian Chersonese, who had also been petitioning Spartan headquarters, spent the summer fortifying them against the Thracians (Xen. *Hell.* III. ii. 8). (We are expressly informed that he omitted to tell the three commissioners of his intention.) He secured his base in Asia, as during the previous winter, which he had spent in Bithynia, by negotiating a temporary truce with Pharnabazus. On returning to Asia he spent eight months in reducing Atarneus, the refuge of the Chian democrats. On its capture he made it a base, and left Draco the Pellenian as ἐπιμελητής. Surely we may infer that in this solitary case Xenophon has not used the word ἀρμοστής because only a Spartan could act as harmost for Sparta!⁶⁰ Dercyllidas now received instructions from the Ephors to attack Tissaphernes.⁶¹ This was in the spring of 397; the order was similar to those given by the

⁵⁹ One may compare the reorganisation of Hieracra by the commission under Rhamphius sent to inspect Brasidas (cf. *supra*).

⁶⁰ Büttolt-Swoboda, *Griechisches Staats und Rechtsalterthum*, p. 1325, note 5, accepts a theory of Breitenbach, that ἐπιμελητής is used here because harmosts had been withdrawn by this time from Asia, quoting Xen. *Hell.* III.

ii. 20 (cf. *infra*). But this agreement was not made till a year later, and then was only hypothetical (cf. Judeich, *Kleinasiatische Studien*, p. 35, who, however, calls Draco a harmost).

⁶¹ Xen. *Hell.* III. ii. 12: οἱ ἑσπερι ἐμμεσαν πρὸς Δερκυλλίδα, καὶ ἐβόωντο αὐτόν, κτλ.

commission of the previous year. One may have been sent, though Xenophon does not mention it explicitly.⁴²

Later, when Tissaphernes and Dercyllidas held a conference, we obtain an interesting side-light on the new organisation of Asia Minor. Dercyllidas for his part stipulates autonomy for Ionia, and Tissaphernes agrees: εἰ ἐξελθοῖ τὸ Ἑλληνικὸν στράτευμα ἐκ τῆς χώρας καὶ οἱ Ἀσπασιανοῖν ἀρμόσται ἐκ τῶν πόλεων (Xen. *Hell.* III. ii, 20).⁴³ We do not otherwise know specifically of any of these harmosts: probably there were not a few towns of Asia Minor under their control.

2. *Agésilas in Asia Minor.*

In 396, at the rumour of a Persian fleet in preparation, the Spartans were roused to face with more determination the task which they had undertaken in Asia Minor (Xen. *Hell.* III. iv. 2). They held, for the first time since the Peloponnesian war, a regular council of allies, and decided to send out the King Agésilas, not with a full Spartan army, but with a council of 30 Spartans, and also 2000 neodamodes and 6000 allies. The King wished to emulate Agameunon, but the power behind the throne was Lysander, who, having lately brought Agésilas to the kingship, hoped through him to achieve the restoration of the decarchies. In this he failed through the firmness of Agésilas, and it is probable that the constitutions of the subject-states were not greatly modified, though they may have been reduced, after their temporary confusion (Xen. *Hell.* III. iv. 7), to a πάτριος πολιτεία compromise. Xenophon eulogises Agésilas' settlement (*Agés.* I. 37): but it seems as if there were still discontented democrats, who preferred to negotiate with Persia.⁴⁴ Hence, for example, in 396 Rhodes revolted, and expelled the Spartans. Isocrates (V. 86) has neatly expressed the mutually contradictory aims of Agésilas' imperialism:—ἔσχε γὰρ διττὰς ἐπιθυμίας, καλὰς μὲν ἀμφοτέρως, οὐ συμφωνούσας δ' ἀλλήλαις οὐδ' ἅμα πράττεσθαι δυναμένας. προηρείτο γάρ, βασιλεὺς τε πολεμεῖν καὶ τοὺς ἑταίρους εἰς τὰς πόλεις τὰς αὐτῶν καταγαγεῖν καὶ κυρίους ποιῆσαι τῶν πραγμάτων.

Agésilas probably employed harmosts in his organisation of the Greek cities; but we do not hear much of them till their expulsion in 394 (cf. *infra*). Lysander may have acted as harmost of Abydos when he was sent to the Hellespont.⁴⁵ If so, his successor will have been Pausanias, of whom we learn in *Hell. Oxyrh.* XVII. 4, that ἐπιβάτης τῷ ναυάρχῳ Χειρικράτει πεπλευκῶς ἐπεμελείτο τοῦ Ἑλλησπόντου, πάντε τριήρεις ἔχων. Agésilas certainly exercised a firm control over the cities which he had rescued. He conscripted

⁴² Probably his chief motive in recording the previous commission was because it provided an opportunity to vindicate his Cyrenians.

⁴³ Kahrstedt (*Gr. St.* I. p. 230, foot) does not seem to have proved his theory, that the harmosts mentioned by Xenophon in this passage must be harmosts of the Hellespontine region. He argues that the major

and the minor harmosts cannot be found in the same area. But did not Dercyllidas control the Hellespont also? He had commanded, e.g. at Lampsacus (Xen. *Hell.* III. ii. 6).

⁴⁴ Cf. Isocr. *Panegy.* 142, and Meyer, *Theopomp.* p. 19, note 2.

⁴⁵ Xen. *Hell.* III. iv. 10, and compare and contrast Plut. *Agés.* 8.

their man-power to fight against Persia (Xen. *Hell.* III. iv. 15); but it cannot be shown that in his demands he exceeded the limits of what could be justified by this object—the overthrow of Persian power in Asia Minor. If Xenophon is to be trusted on the subject of his hero, the cities were loth to lose him when he was recalled to help his native land: they even voted voluntary assistance to him in the Corinthian war (Xen. *Hell.* IV. ii. 4; *Ages.* I, 38).

3. *The Harmosts, 394–386.*

When, in the spring of 394, Agesilaus left Asia, once more the chief command reverted to a harmost. For in Asia Minor he left behind Euxenus 'as harmost with a garrison of not less than 4000 men, to protect the cities' (Xen. *Hell.* IV. ii. 5). This also implies for Sparta a change from an offensive to a defensive policy towards Persia.

It is typical of Xenophon's disconnected narratives in the *Hellenica* that he never tells us any more of Euxenus and his force, nor does he attempt to link him up with Thibron, who returns to Asia Minor in 391, summer. But it is clear that Sparta never completely evacuated Ionia: and conjectures based on the references of later authorities can fill this gap in Xenophon's narrative. Two of these may be briefly noted. In the first place, Diogenes Laertius, in his scrappy life of Xenophon, says: ἀλλὰ καὶ Φυλοπίδαν τὸν Σπαρτιάτην φασὶν αὐτῷ (Xenophon) πέμψαι αὐτόθι (at Scyllus) δωρεὰν ἀνδράποδα σίχμάλωτα ἐκ Δαρδάνου. This is not much to go upon; but at least it is clear that after 394 some Spartan sent Xenophon prisoners of war from Dardanus. It is fairly safe to assume that only the commanding officer of an army could dispose of numbers of slaves as gifts to private friends: also after 394 we do not expect to find many Spartans in Dardanus. It will be seen that the gap between Euxenus and Thibron is the only place for such a commanding officer as yet unfilled. We may, then, conjecturally place Phylopidas as Euxenus' successor at a year's interval in 393 B.C.: since we have seen that, at least in Asia Minor, it was customary to inspect or supersede the harmost at that interval.⁶⁶

A second passage is that in Polyaeus (VI. x), who speaks of one Alexander προύρραρχος τῶν περὶ τὴν Ἀιολίδια χωρίων, who, by hiring Thersander, the famous flute-player, and other notable performers to give a display in the theatre, succeeded in capturing and holding to ransom many wealthy citizens. He then handed over the district to Thibron, and left. From Xenophon's mention of Thersander as a companion of Thibron on his second expedition to Asia Minor (Xen. *Hell.* IV. viii. 18), Poralla (*Prosop. d. Lak., sub nom.*) has plausibly conjectured that Alexander was Thibron's Spartan predecessor. If we place his command 392–1, Phylopidas and Alexander then just fill the gap from Euxenus to Thibron.⁶⁷

The Spartan commander in Asia Minor must have been seriously harassed

⁶⁶ We cannot be certain that Xenophon was settled at Scyllus quite as early as 395–2. Diogenes may, however, be writing loosely; and in any case Xenophon's presence there at that date does not seem impossible, if he was exiled for fighting against Athens at

Coronea (394).

⁶⁷ Meyer (*Theopomp.* p. 108) prefers to connect Alexander with Thibron's first campaign; but his objections to the later date do not seem sufficient.

by the general revolt in favour of Athens and democracy (autumn 394), which broke out on the news of the battle of Cnidus. Many of the mainland towns, as well as the islands, expelled their harmosts. Diodorus only mentions specifically Ephesus and Erythrae.⁶⁸ The chief rallying point for harmosts was Abydus. There Dercyllidas, who had been sent on to Asia with the news of the Spartan victory at Nemea, had settled down as harmost. He proceeded to gather the fleeing harmosts from both Europe and Asia around him. From whence the harmosts of Europe came, unless from τὰ ἐπὶ Θράκης, it is not easy to guess: one may have fled from Byzantium, but none could have come from the Chersonese, which was evidently already in Dercyllidas' sphere (Xen. *Hell.* IV, viii. 5). Later we learn that the number of Spartan refugees was more than twelve. For when Anaxibius, Dercyllidas' successor, and his force were annihilated by Iphicrates in 389, we hear that τῶν Λακεδαιμονίων τῶν συνεληλυθότων ἐκ τῶν πόλεων ἀρροστήρων ὡς δώδεκα μαχόμενοι συνανέθανον· οἱ δὲ ἄλλοι φεύγοντες ἐπιπτον.⁶⁹

Sparta's policy in Asia Minor remained merely defensive; and in 392 she even decided to reconsider her attitude towards Persia, and sent Antalcidas to Sardis with powers to treat of peace. The terms proposed, which were identical with those ultimately embodied in the peace of Antalcidas, consisted in a renunciation by Sparta of her ideal of an empire. Asia Minor, as in Lichas' treaty, was to be the King's, and the Greek states were to have individual autonomy. This plan commended itself to Tiribazus, the satrap; but the anti-Spartan alliance refused it, Athens in particular showing herself unwilling to abandon hopes of a new empire. The Persian King was dissatisfied and sent down a new satrap, Strouthas, to carry on the war against Sparta. But Persia was the only power ultimately to gain by this postponement of an inevitable peace.

With Thibron's return to Asia (391) Sparta's strategy became once more offensive, because she had been disappointed at the failure of peace negotiations, and had been vexed by the anti-Spartan attitude of the new satrap (Xen. *Hell.* IV, viii. 17). This change in policy did not prosper long. Thibron regained possession of Ephesus and the cities of the Maeander valley, but he was soon defeated and killed by Strouthas. The remnants of his army took refuge in Cnidus (τὸ Κνιδίνιον φρούριον, Diod. XIV, xcix. 3), which seems to have been the Spartan naval base in Asia Minor at this time (cf. also Xen. *Hell.* IV, viii. 22, etc.).

In 390, Diphridas was sent out with the navarch Ecdicus (Xen. *Hell.* IV, viii. 21). Rhodian oligarchs had appealed for help against the democrats,⁷⁰ and Samos returned to the Spartan cause (Diod. XIV, xcvi. 4) and provided

⁶⁸ παραπλησίως (i.e. φρουρὰν ἐφελόντες), *anticalon*, XIV, lxxxiv. 3. Cf. Ditt. *Syll.* 126 for a decree of Erythrae in praise of Conon at this time, and Dem. XX, ix. for a statue in his honour at Ephesus.

⁶⁹ Xen. *Hell.* IV, viii. 39: for the form ἀρροστήρ cf. *I.G.* V, 937 and Plato Comicus, *πρίαβης* (Kock), *frag.* 120.

⁷⁰ Philodocus is mentioned by Diod. (XIV, xcvi. 3), in company with Ecdicus (Eudocius) and Diphridas, as a Spartan commander, but is omitted by Xenophon. Was he appointed as harmost of Rhodes—a position never achieved? So also Judeich, *Kleinasi. Stud.* p. 90.

ships (Xen. *Hell.* IV. viii. 23). Diphridas assembled the scattered remnants of Thibron's army, but we do not hear of any great achievement on his part. By this time Sparta had recognised the futility of attacking Persian satraps, when her chief hope for victory lay in reconciling Persia. It is probable that Diphridas was recalled in 389. The chief command in Asia, so far as any existed, passed to Anaxibius, who was sent out to Abydus in that year to undo Thrasybulus' successes. But he was killed not long after by Iphicrates (cf. *supra*); and, in 388, Antalcidas was again navarch with a special commission to secure peace. In accordance with the King's Peace (which he negotiated), Sparta, after splitting up all the Greek states into their smallest autonomous sections, withdrew her harmosts from Greece and from Asia Minor; which, exactly as in Lichas' treaty, was conceded to Persia.

Yet Agesilaus did not remain a loyal ally of the Great King. From scattered references in our authorities it is clear that he still hankered after conquests in Asia. Hence all the various possible enemies of Artaxerxes—Orontes (Diod. XV. viii. 4), Glos (*id.* xviii. 1), Tachos (*id.* xix. 1), and Evagoras (Isocr. IV. 135; Theopomp. *frag.* 101, l. 28 (Oxf.))—entered into negotiations with Sparta. But these obscure plottings were brought to an end by the outbreak of war in Greece, 378 B.C. (Beloch, III. i. 99).

4. *Summary of results concerning the second type of Harmost.*

The campaign in Asia Minor has illustrated the second type of harmost, which we have already separated as partly distinct from the first type. This is the leader of a large army operating in a large area; but still to some extent restricted, and directed by the home authorities. No instance of this type is found in Thucydides which that author or any other specifically designated harmost. So it would be possible to argue that Lysander in 403 was the first instance. But if our arguments hold good, there is no trust to be placed in Thucydides' omission of the word. Moreover, one general in Thucydides—Brasidas—offers a striking parallel to Thibron and his successors. Particularly noticeable is the similar use of an annual commission of three inspectors in both instances. If we assume that it was not mere loose writing on Xenophon's part to call Thibron a harmost, Brasidas seems similarly qualified for the title, if it was in use in his day. It is clear that one could not expect any such parallel instances from the period 413–05; for though Sparta then, as in 399–88, was operating on the Asia Minor coast, her enemy was Athens, not Persia. Hence the chief command was in the hands of a navarch and not of a harmost. The two officers are employed together, but are kept distinct in 403; and the harmost as chief commander reappears again in the campaigns in Asia Minor, 399–88.

SPARTA, 386–371

1. *Sparta's position under the Peace of Antalcidas.*

Sparta in her relations to the rest of the world had momentarily returned to a position superficially not dissimilar from that which she had occupied before the Peloponnesian war. The principle of city autonomy was not regarded

by her as applying to her own Peloponnesian league, so as to compel her to dissolve it. In this Sparta was perfectly right, as the old custom of the sixth-century league had been (speaking generally) maintained, and no interference made in the private affairs of members. The Athenian empire was in a different category, particularly because it was specially suspect after its fifth-century history. But even toward Athens Sparta was more generous in her interpretation than in 404 B.C.: for she allowed Athens the control of Lemnos, Imbros and Scyros. In dissolving the Boeotian league Sparta erred on the side of strictness, as her interest prompted her. Her justification probably was that the federation was closer than her own league, and that not all the Boeotian cities were equally willing members. The strongly recalcitrant cities, Orchomenus, Thespiæ and Plataea (now restored), henceforth became pro-Spartan oligarchies; the oligarchs also returned to Corinth, which was separated from Argos.⁷¹ This tendency towards dissolving federations into their component cities, as a result of the Peace of Antalcidas, is well illustrated by the fact that the federal coinages of Boeotia and Phocis are now replaced by coins struck by each city, however small.

But Sparta's return to her old position was only nominal. The actual and basic difference was that she had by now evolved in some sort the machinery for controlling an empire, and, moreover, had acquired the appetite for imperialistic expansion. Such a desire was quite incompatible with a peace which had been based on the autonomous independence of each πόλις. Yet Sparta strove to combine both by means of her position as chief arbiter of the treaty. By insisting on absolute autonomy she would split up rival federations, like Boeotia, while at the same time the defence of the principle gave her an excuse for reducing states which, like Olynthus, persisted in disregarding it, to the position of mere subject allies of herself. This malicious policy caused her enemies to combine once more against Sparta, and brought about the complete downfall of her foreign empire and her Peloponnesian league.

But the combined enemies of Sparta would not have been dangerous to her if she had not weakened the very foundation of her power—the Peloponnesian league.⁷² For one effect of the Peace of Antalcidas seems to have been, that Sparta, having surrendered her empire, proceeded to treat her league more as if it was an empire, and her empire (when it grew again) more as if it was a league. This abolished the distinction introduced by Lysander and broke the tie that bound the Peloponnesian cities to her. For example, when Mantinea was accused of disloyalty to the league, Sparta interfered and dissolved the city into four villages and undid the Synoecism of 470-69 B.C. The Mantineans continued as members of the league; but the league was being interpreted in a different sense from that permitted by the King's Peace.

⁷¹ E. van Stern seems to go too far in assuming, on the strength of Polybius, IV. xxv, 3, that Sparta actually failed to withdraw her harmosts. Xen., *Hell.* V. I. 23, iv. 10, 26 does not prove anything, except the existence of pro-Spartan oligarchies in

Thespiæ and Plataea: while *Isocr.*, *Plat.* xiii., shows that the harmost was in Plataea only during the subsequent war: cf. *infra*.

⁷² Cf. Autocles' speech, Xen. *Hell.* VI. iii. 7 seq.

2. *The Renewal of the Empire.*

It now remains to trace the use of harmosts in carrying out this new policy. The first harmost appears again with the first distant expedition which would extend Sparta's sphere of influence. Apollonia and Acanthus appealed to her, urging that the Chalcidic league, which had escaped the King's Peace, was violating the principle of city autonomy. Sparta, after summoning a meeting of the Peloponnesian league, decided to send the εἰς τοὺς μυρίους σύνταγμα of her own and the allied troops against Olynthus. While these were being assembled, Endamidas was despatched with an advance guard of 2000 neodamodeis, perioecis and Scirites (Xen. *Hell.* V. ii. 24). He is not called harmost by Xenophon; but Aeneas Tacticus, a contemporary authority and a technical writer, calls him ὁ Λακωνικῶν ἀρμοστής ἐπὶ Θράκης; if we accept Schaefer's emendation of the proper name (XXVII, 7). The title is evidently correct: Endamidas' position is parallel to that of Thibron. There are also, just as there were in Asia Minor, smaller harmosts and garrisons to protect the lesser cities of Chalcidice (τοῖς μὲν δεομένοις τῶν πόλεων φρουροὺς ἔπαμπεν: Xen. *Hell.* V. ii. 24), while Endamidas himself took Potidaea as his base.

Soon afterwards, Phoebidas, while on his way with reinforcements to his brother in Thrace, treacherously conspired with Theban oligarchs and captured the Cadmea. Since the King's Peace, this is the first instance to be found of a harmost set up merely to maintain a pro-Spartan oligarchy. It served to show that Sparta was prepared to tolerate any injustice for expediency's sake. (Cf. Xen. *Hell.* V. ii. 32.)

In the spring of the following year (381) the Spartans dispatched their σύνταγμα under Teleutias, brother of the King, as ἀρμοστής (Xen. *Hell.* V. ii. 37). He did not remain in command a year, for before his first campaign was over he was defeated and killed. The remnant of his troops escaped to Spartolus, Acanthus, Apollonia and Potidaea: probably these cities were already occupied by harmosts (cf. *supra*), and so would make good places of refuge. To avenge this defeat the Spartans sent out their King, Agesipolis, with 30 Spartans as his staff. Evidently this is the first body of real Spartans sent to Thrace: they are exactly parallel to Agesilaus' staff in Asia Minor.

Meanwhile the oligarchs in Phlius, who had been recently restored under threats from Sparta (Xen. *Hell.* V. ii. 8), complained to their patron, Agesilaus, that they were not being fairly treated by the democrats. Agesilaus led an army to Phlius, and demanded the surrender of their acropolis (*id.* V. iii. 15). As this was refused, a lengthy siege followed; when at last Phlius surrendered, a selected body of its citizens were put to death. Some kind of temporary harmost was installed (φυλακὴν καὶ μισθὸν τοῖς φρουροῖς ἐξ μηνῶν, Xen. *Hell.* V. iii. 25) until the new constitution was drafted. The whole incident illustrates the growing callousness of Sparta towards her allies and their assimilation to the merely subject cities.

On Agesipolis' death, his place in Chalcidice was taken by Polybiadas, an ἀρμοστής (Xen. *Hell.* V. iii. 20) once more. For Agesipolis like Agesilaus is only called ἡγεμὼν (*id.* V. iii. 8). Polybiadas was more successful than his

predecessors: Olynthus was starved into submission, and agreed to become a member of the Peloponnesian league.

3. *Survey of Sparta's newly acquired Empire.*

With the successful conclusion of the Olynthian war, Sparta once more was possessed of an empire almost equal in size with that which she had held before the King's Peace. We may partly measure its extent by the scheme of its military organisation given by Diodorus under the year 378 (XV. xxxi. 2). There it embraces in ten divisions (including the Spartans themselves), Arcadians, Eleans, Achaeans, Corinthians, Megarians, Sicyonians, Piliatians, the men of the Acte (*i.e.* the independent cities of the Argolid), the Aearnianians, the Phocians, the Locrians, the Olynthians and the men of the Thraceward cities. To those we may add Boeotia, which was still subject in 379; and perhaps some of the islands. Diodorus is apt also to assume elsewhere (*e.g.* XV. xxviii.) an absurd extension of the Spartan empire over the whole Aegean. This may be rejected, but perhaps he is right in including Peparethus and Sciathus in their *ἀρχή* (*ib.* xxx. 5). Isocrates alludes rhetorically to the Spartans as collecting tribute from the islands, and quarrelling with Athens over the Cyclades (IV. 132-6: 380 B.C.). The latter statement is probably to be explained as a reference to a dispute over the Treasury of Delos (*cf.* Beloch, III. i. p. 144). The former, as the context shows, may well be merely an allusion to island, as opposed to mainland empire, and need not imply that at the moment Sparta was actually collecting tribute. It is difficult to understand how Sparta could control a large island empire when she had no real navy (Xen. *Hell.* V. iv. 60).

When we turn to the organisation of the empire, it is seen that it differed greatly from its predecessor. The distinction between empire and league has practically vanished; but we have not the same reason to imagine that the members were controlled by harmosts and garrisons, as had been true in the Lysandrian empire. There were harmosts in Thebes, Orens (Diod. XV. xxx.), Philus (temporarily) and Heraclea (presumably), but we do not hear of any others, and there is little cause to imagine that many more existed. Nor with the exception of Isocrates' doubtful reference do we hear of tribute. The organisation was therefore mostly laid down on the lines of the old Peloponnesian league. The members provided personal service in war, or their service could be commuted for money at a fixed tariff (Xen. *Hell.* V. ii. 21). They were even asked to give their opinion on the question of war or peace. How far this return to the old system was actually intended to be permanent one cannot decide: it may have been dictated solely by expediency—Agesilaus' grand criterion. So long as the pro-Laonian oligarchies maintained themselves in the allied cities, it was not to Sparta's interest to add harmosts. By the application of the principle of city autonomy she could reduce her allies to individual innocuousness; but Sparta was quite prepared to instal harmosts if the situation called for them. The difference in her organisation can be explained without supposing a change of heart.

4. *The break-down of the Empire.*

On the revolt of Thebes, Sparta had to abandon plans for further expansion and concentrate on recovering control of Boeotia.⁷² The Theban democrats had offered terms: but Sparta was obdurate, and would accept nothing short of a restoration of the oligarchy. Similarly, when a few months later Sphodrias' raid on the Piræus involved Athens in the struggle against her will, the Spartans by acquitting Sphodrias showed that they approved of his action whatever were its motives. Sparta fostered the war which was to strip her of her empire.

The strategy which Sparta adopted was a variation on that used in the Corinthian war. One of the kings led an annual invasion into Boeotia and ravaged the plain. He also set up harmosts in the anti-Theban towns to organise continuous hostilities through the winter. The plan might have succeeded if Sparta had controlled the seas.⁷³ But Sparta was too late in trying to correct this strategic weakness. The other defect in her plan is that the harmosts failed to maintain themselves in Boeotia from one summer to the next; e.g. Phoebidas was set up by Agesilaus in Thespiae (summer 378 B.C.), and was killed by the Thebans during the following winter (Xen. *Hell.* V. iv. 41 *seq.*). The same fate befell Panthoidas, the harmost of Tanagra (Plut. *Pel.* XV.), and the harmost of Plataea.⁷⁴ These incidents mark the failure of the harmost system in warfare through lack of continuous communication with headquarters.⁷⁵

Hence we find Sparta substituting the stronger force of a polemarch with a Spartan *mora*: e.g. at Thespiae, after Phoebidas' death.⁷⁶ But after 376, Sparta did not again make a direct invasion of Boeotia: her attention was distracted by Athens' naval activity. As a result Thebes was able gradually to reconquer the Boeotian plain: until, finally, all Sparta could do in reply was to maintain by relays a garrison of two *morae* at Orchomenus. Even this force is only known to us because of the defeat which Pelopidas inflicted on it at the battle of Tegyra (Plut. *Pel.* xvii.; Diod. XV. xxxvii.).

This was the last event in Sparta's struggle for a land empire before the peace of 371. Her sea-battles in the west against Athens were more defensive than offensive, and strategically resemble the battles in the same waters during the Archidamian war. At both periods, Leucas and Zacynthus were Sparta's allies.

The uselessness of the harmost system was ultimately admitted by Sparta herself at the same time when her hope of further expansion was finally resigned. In 374, or according to Beloch's chronology in 371 B.C., Polydamas of Pharsalus appealed to his Lacedaemonian allies to help him against the overwhelming forces of Jason of Pherae. But he warned them: εἰ δὲ νεοδαμώδεις καὶ

⁷² On the harmosts in Thebes and Oreea, and Sparta's plans against Jason, cf. *Class. Quarterly*, Oct. 1927.

⁷³ Cf. Xen. *Hell.* V. iv. 56, for a famine in Thebes.

⁷⁴ Isocr. XIV. xiii.; he is probably to be

identified with Cleandras, Plut. *Pel.* XXV.

⁷⁵ Compare the situation of Clearchus or Hippocrates after the battle of Cyzicus.

⁷⁶ Xen. *Hell.* V. iv. 46, and cf. the inscription from Thespiae (*J. G.* VII. 1904) of a Spartan ἡποκλαεῖ.

ἀνδρά ἰδιώτην οἰεσθε ἀρκέσειν, συμβουλεύω ἡσυχίαν εἶχειν (Xen. *Hell.* VI. i. 14). The Spartans realised that they could not spare any other kind of force than the harmosts and neodamodes whom they had grown accustomed to use on distant expeditions; for Cleombrotus with the main Spartiate army was required to defend Phocis. So Polydamas was told that sufficient assistance could not be sent.

In 375-4 the first attempt at peace negotiations was begun by the Athenians. The terms were that the King's Peace should be restored: only now the Athenian league was to be regarded as equally valid with the Peloponnesian. Boeotia (in spite of Diod. XV. xxxviii. 2) was to remain a federation: perhaps as part of the Athenian league. All this implied little else than the legalisation of the *status quo*, except possibly for the withdrawal of some garrisons by either side. It is not known whether this condition was ever carried out: the dispute over the Zacynthian exiles broke the peace in a few months.

The treaty of 371 was exactly similar in principle: we may note, however, that Xenophon (*Hell.* VI. iii. 19) explicitly mentions that while Sparta took the oath for her own league, the Athenian allies took the oath separately. It was at this point that Agesilans insisted that Thebes must not take the oath in the name of the whole Boeotian league. This attempt to return literally to the King's Peace was bound to cause trouble. A treaty which left any city ἐκσπονδός could never guarantee the peace of Hellas in the fourth century. The coercion of Thebes, if accomplished, would not have led to permanent settlement, but in fact it proved to be beyond Sparta's powers.

The terms of the treaty of 371 also required that Sparta should once more recall her harmosts from the cities. This was done; but our authorities do not tell us what were the cities—presumably only a few in Central Greece and in the Peloponnese; e.g. the προύρχος Λόκων at Epidaurus in 373 B.C. (autumn), with whom Iphicrates had a skirmish.⁷⁶ Cleombrotus with his army in Phocis was not recalled, in spite of the proposal of Prothons (Xen. *Hell.* VI. iv. 2). The battle of Leuctra followed, and as a direct consequence, Sparta lost her hold outside the Peloponnese, most of her Peloponnesian allies, and even Messenia, the last vestige of her original empire.

The cause of her failure is clear. In attempting to reach a compromise between her league and her empire she had sacrificed most of her allies' allegiance. Then when she resigned, by the treaty of 371, the material organisation of her empire, and had been shorn of her spiritual prestige by the battle of Leuctra, she found that nothing remained to her but a much-reduced body of citizens and perioeci. Sparta herself might have been destroyed; but her annihilation was not to anybody's interest. So she became now what once she had made Argos become—a strange survival, always refusing to recognise her humiliation, but unable to overcome it.⁷⁷

⁷⁶ Polyaeus, III. ix. 48; cf. Arist. *Rhetor.* III. 10. For an alternative dating cf. Botsch, III. i. 92, note 2.

⁷⁷ For a late instance of a *δυσωπία* set up by Cleonymus for a short time in Troezen, c. 277 B.C., compare Polyaeus, II. xxix. 1.

CONCLUSION

The history of the Spartan empire illustrates in a high degree the dangers of trusting to the success of breaches of political morality. We have seen how Sparta began the Peloponnesian war with the object of breaking the Athenian empire. When, after the peace of Nicias, she renewed the struggle, she was lured into what seemed a tempting short cut to victory. So after freeing the Asian subjects of Athens, she handed them back to the Great King in exchange for Persian gold. This immoral course was partly thrust on her by her inability to support a fleet for long in foreign waters—a defect which was consequent on her domestic constitution. Perhaps if she had been quicker to strike in 413 she would not have needed Persian help. As it was, she did not gain much by it, till she produced the man who was prepared to co-operate with Persia to any lengths. When Lysander appeared, it was inevitable that Sparta should be at his mercy: she could not win without him, and he decided at first how she should use her victory.

It is most unlikely that any Spartan had originally planned to take over the Athenian empire; but in the flush of victory, Lysander found many to support him in utilising the methods already employed in waging war against imperialism, in order that by them he might found instead a Spartan empire. As we have seen, the harmosts set up by Lysander were derived directly from the harmosts used in the Archidamian and Deceleian wars. From the founding of Heraclea the development of the harmost system has been traced. It was fully evolved to enable Sparta to cope with her strategic problem in the Ionian war: how was she, *without complete naval superiority*, to hold strategic points and lines of communication over the whole Aegean? Sparta was additionally handicapped by the requirements, (i) that Lacedaemon (for fear of the helots) must not be denuded of Spartiates, but (ii) that Spartan commanders must be provided to supply the initiative which her allies seemed to lack. The harmost proved to be the necessary modification of Sparta's traditional methods of warfare. The chief common features of each harmost (whether so called by our authorities or not) was (i) that he held an extraordinary position apart from Sparta's regular organisation, (ii) that he commanded a force not of Spartiates but of neodamodes or allies, and (iii) that his command was exercised as a supreme officer in a definite area. This was the military system, already existing, which Lysander adopted to form the foundation of the Spartan empire.

This empire, compared with the Athenian, had several fundamental weaknesses. (i) It had no common purpose in existing; Athens had the excuse of resisting Persia, but in 404 Sparta's empire was not seriously required to resist Athens. As a result, Sparta had nothing to offer her subjects except the doubtful blessings of oligarchic government, which in its nature did not appeal to many. (ii) It is doubtful whether Sparta insisted on universal oligarchy any more strictly than Athens on universal democracy.⁷⁸ But coming suddenly from the original champion of city autonomy this repressive policy seemed

⁷⁸ Compare Walker, *C.A.H.*, V. App. iv.

the more outrageous. (iii) Nor did Sparta protect her subjects from piracy and maintain the freedom of the seas as Athens had done. She did not even offer them a great centre of trade and culture: the pretence of autonomy was kept up only to the extent of treating each city as an isolated unit. (iv) Finally, Sparta did not gain greatly from the empire herself. The true Spartiate had no trade interests for it to foster, and the tribute received was not employed in making Sparta a city of palaces.

The Spartiate who succeeded in foreign service was not of the type required by Lycurgus' system. Dercyllidas can be cited as an instance. He showed that he deserved his nickname of Sisyphus, by his ingenuity in looking after his own interests without imperilling his position. Agesilaus knew and humoured Dercyllidas' weakness for life abroad (Xen. *Hell.* IV. iii. 2, καὶ γὰρ ἔει φίλαπόδημος ἦν); the brief dialogue between them, reported by Xenophon, admirably illustrates Dercyllidas' eagerness, combined with his cautious avoidance of committing himself. But, as might be expected, Dercyllidas' long absences prevented him from fulfilling his proper duties as a Spartan citizen. At any rate Plutarch (*Lycurgus*, XV.) records an anecdote which shows that he was blamed for having no sons. Dercyllidas was only typical of the fourth-century Spartans who preferred ἀρμόζοντας ἐν ταῖς πόλεσι καὶ κολακευομένους διαφθείρεσθαι (Xen. *Lac. Pol.* xiv.). The Spartan passion for imperialism inevitably clashed with the Lycurgean system and brought about its collapse.

The fact is that the Spartan empire as founded by Lysander was an anomaly when joined with the Peloponnesian league and the Spartan constitution. It is possible that Lysander would have modified the constitution to match the empire, but he was prevented from doing this, and the Kings did not fully adopt the opposite method of reducing the anomaly. They did not merge the empire in the Peloponnesian league, or give the cities free choice of constitution. So they failed to undo all the harm that had been done.

Instead they adopted half-measures: they reduced the extreme oligarchies and began to protect Greeks as Greeks against barbarians as barbarians. This started as a movement against the Thracians, but on the appeal of the Asian cities in 400, Sparta's attention was diverted against Persia and she began to remedy the evil of their betrayal in 411. Under the threat of a Persian fleet, this developed into a grand crusade of Hellenism; but before Agesilaus could achieve any permanent success he was recalled to Greece by the outbreak of the Corinthian war. Sparta was threatened at home and abroad; and she lost much of her empire, and was badly shaken, before she took the inevitable course—to make peace with Persia again on the terms of 411. The Spartans have been blamed severely since the time of Isocrates for surrendering Asia Minor by the Peace of Antalcidas, but she could not avoid this step. The fault lay as much with the democratic leaders who accepted Persian gold in 395; and it had been committed by Lichas in 411. For if Persia was once admitted to a share in deciding Hellenic politics, it was inevitable that she should hold the casting vote and demand Asia Minor as a reward for her decision. Also we can understand that the democrats of 395 had abundant cause to fear the Spartan predominance which would result from a conquest of Asia Minor.

Their fear was a direct result of the excesses of the Lysandrean empire. So the Peace of Antalcidas, which involved a surrender of the Spartan empire, is a Nemesis punishing Sparta's earlier faults.

Sparta's second attempt at an empire was doomed to failure from its inception. Through the rise of professional soldiers, Sparta had lost her military pre-eminence; and it could not be expected that the other parties to the Peace of Antalcidas would submit quietly while Sparta broke the treaty both in spirit and letter. She showed some prudence in including all her acquisitions in her league; but quite as much folly in not treating the members of that league with fairness. Persia also had learnt that her best interest was to prevent the reunion of Hellas under any leader. So when the war went against her, Sparta had no recourse but to surrender her empire. All might now have been well if Agesilaus had not tried a final political gamble, which brought down the full force of Thebes on Sparta and her weakened league.

One cannot regret that Sparta failed to achieve her empire again. Even if Agesilaus had succeeded, and had realised his ambition of conquering Asia Minor from Persia, Sparta would not be likely to have spread Hellenism as well as Macedon did. Agesilaus and Archidamus could not have filled the places of Philip and Alexander. Sparta had little native culture, and did not borrow much from the rest of Greece, whereas the Kings of Macedon supplied an equal lack of native culture by the introduction of all that was best in the art and literature of Hellas.

It is not surprising that Sparta's imperial methods were not much imitated. Thebes in 366 attempted to hold Achaia against Sparta by installing harmosts and democracies; but the experiment once more proved the uselessness of the system (Xen. *Hell.* VII. i. 43).^{79a} Sparta exerted more influence in later Greek history through what one may call the by-products of her imperialism than by her imperialism itself. The principle of city autonomy which she had alternately asserted and overthrown led to the distinctive status of the Greek πόλις under the Hellenistic monarchies. Also the league of autonomous states, which elected Philip and Alexander as generals of the Hellenic armies, may be looked on as a nobler realisation of the later Spartan league. Finally, Sparta, in spite of her double surrender of the Asian Greeks, had by her far-reaching ambitions given a wider extension to the conception of Hellenism itself.

APPENDIX

ON THUCYDIDES' USE OF THE TERM ἄρχων WHEN APPLIED TO SPARTAN OFFICERS

It has seemed more convenient to summarise this subject briefly in an appendix rather than to allow it to break the continuity of the historical narrative.

The chief points are these:—

- (i) Thucydides only used the word ἄρχων once (VIII. v. 2); but, so far as can be seen, it is not employed there with any difference of

^{79a} Compare, however, the commanders and garrisons of Hellenic monarchs, e.g. Cassander,

meaning from numbers of instances where he merely uses the less technical term ἀρχων.

- (ii) Xenophon and Theopompus each use the term ἀρμοστής once of the very officers whom Thucydides only calls ἀρχων.⁷⁹ Also there is the less certain instances of the harmosts of Heraclea, where Xenophon applies the title to a successor of Thucydides' ἀρχοντες.
- (iii) There seems to be such a similarity of function between Clearchus, whom Xenophon calls ἀρμοστής, and others like Chalcidens (Thuc. VIII. viii.), whom Xenophon did not have cause to mention, that it seems *prima facie* possible to extend the title harmost to cover a much larger number of Thucydides' ἀρχοντες than those to whom our other authorities actually apply it.
- (iv) This is made the more probable by the fact that Thucydides is not accustomed to use technical terms in his history even when they were certainly in use in his day.⁸⁰ His use of ἀρμοστής on a solitary occasion in Book Eight vouches for its accuracy when applied to Spartan officials before 405-4. Probably, however, if Book Eight had received its final revision, the technical term would have disappeared.
- (v) Finally, if any one would prefer to explain all references to harmosts before 405-4 as mistaken applications of a term which was really coined for the officers set up by Lysander, surely it must be admitted that the resemblance between the two types of Spartan officers must have been great for this 'misapplication' to occur almost at once in contemporary writers. The admission of this resemblance is a sufficient confirmation of the theory here set forth, that Sparta's imperial organisation was directly derived from her strategic organisation in the Ionian war.

H. W. PARKE.

⁷⁹ Clearchus, Thuc. VIII. viii. etc. Xenophon, *Hell.* I. iii. 15; Pylarchus, Thuc. VIII. xxviii. Theopompus, *Frag.* viii. (Def.).

⁸⁰ E.g. *royés* (Xen. *Hell.* VI. I. 18) βρωδός (Thuc. I. xxi.), or ἀπορρὸν ἔργον (Xen. *Hell. passim*), which never occurs in Thucydides.

KJELLBERG'S NEW CLASS OF CLAZOMENIAN SARCOPHAGI

[PLATES III, IV.]

WINTER made a seemingly exhaustive classification when he divided Clazomenian sarcophagi into two main classes, which he called A and B (*Ann.*, 1898, p. 175). His class A is the small class to which belong the big, deep, rectangular sarcophagi with copious decoration in Clazomenian B.F. style (*i.e.* B.F. without incised lines) like the sarcophagus in the British Museum (Murray, *Terracotta Sarcophagi*, Pl. 1-7). This has a gable-roof, as had, probably, all the others of this class. His class B is the big class, to which belong the large number of open, trapezoidal sarcophagi with decoration ranging from seventh-century pure East-Greek style down through different phases with different techniques to the most developed Clazomenian B.F. style of the end of the sixth and beginning of the fifth centuries. Recently, fresh evidence has enabled Kjellberg to add a third class, which he calls C (*Jahrb.*, 41, p. 51). The sarcophagi of this new class have features both of A and B, but the style of decoration and the simple, rectangular shape seem to show that they must be considerably earlier than all of A and earlier than the earliest of B. Already in 1905 (*Jahrb.*, 20, p. 189) Kjellberg had drawn attention to a sarcophagus belonging to Arndt, which, as he showed, could not be reasonably placed in either A or B. Like A, this sarcophagus is rectangular, and therefore intended to stand on its base; the four sides of the slightly projecting edge are of equal width: unlike A, it has no cover, it is shallow, it is much longer in proportion to its width, it has almost straight sides, and the edge is narrow. Like B, it has projections at the four interior corners. It is difficult to understand the purpose of these projections: they are not found in A, but always in B. It has been suggested that they were intended to keep the body in place when the sarcophagus was placed upright on its narrow end at the prothesis (Pfuhl, *Mal. u. Zeich.*, i, p. 166). This does not account for their presence in the rectangular sarcophagi. Mr. Forsdyke suggests that the clay sarcophagus may have as its prototype a wooden chest which had the projections at the corners to give extra strength.

The decoration of this sarcophagus (Fig. 1) is very simple, and, as in B, is confined to the four sides of the edge: these four sides are of nearly equal width and narrow (9-11 cm.): conventionalised lotus flowers with palmette filling and buds on short stalks decorate both ends. A meander pattern with saltire on the long sides is bordered at the upper end by the same lotus flowers and buds, at the lower end by a late-Camiran lotus flower-and-bud wreath; this is of great importance, as I shall show, for dating the sarcophagus. The children's sarcophagi, published by Dugas (*B.C.H.*, 1910, p. 469) are in shape

and proportions like Arndt's, but they have not the interior projections: these sarcophagi are decorated only with meander and wavy lines; Dugas, believing that sarcophagi for children might well be of simpler shape and might retain the geometric and other motives of a past age, saw no reason against assigning them to the same class as the big sarcophagi of A. In 1913, Picard and Plassard (*B.C.H.*, 1913, p. 390) published two sarcophagi (one with much of the decoration destroyed) in the National Museum of Athens; these in shape and proportions are like Arndt's, they have the four interior projections, but instead of floral decoration, there are scenes of animal life in pure East-Greek style (Pl. IV. B). These, because they are rectangular, Picard and Plassard assign to A. In 1921, Oikonomos excavated a cemetery near Clazomenae at Monasterakia: here he found a number of sarcophagi, piled one above another. The account is as yet very summarily published (*Praktika*, 1921, p. 63 ff.), but it seems that many are of the same long, narrow, rectangular shape as Arndt's: the decoration



FIG. 1.—ARNDT'S SARCOPHAGUS.

is varied—linear, floral pictures of animals—wild goats, lions, bulls (*J.H.S.*, 1921, p. 275): This was the fresh evidence that convinced Kjellberg that here was a new class earlier than both A and B: this he called class C (*Jahrb.*, 41, p. 51).

This new class is of great importance both for the history of Clazomenian art in its earliest phases and as giving evidence for burial customs in the seventh century. In this century, the chest in which the unburnt body was placed was of simple rectangular shape, long, shallow and narrow, hardly differing except in size and depth from a chest used for containing the ashes which was found in an early grave (Grave 17) at Thera (*Thera*, ii, p. 28, Fig. 74). At some later time, perhaps at the end of the seventh or the beginning of the sixth century, when relations between Egypt and the East were very close, a new type of sarcophagus and a new burial custom were introduced, both almost certainly borrowed from Egypt. The body was now placed in a trapezoidal sarcophagus: this, like the Egyptian mummy, stood on its narrow end at the prothesis. The change of position explains the greater width and the greater elaboration of the

decoration at the top end, the head, of the sarcophagus; with the change in shape and position came, in turn, other changes for this proud, upper end of the sarcophagus—new technique, new style, new themes.

In the light of our present evidence it seems that the trapezoidal shape replaced the early rectangular shape, and that for some part of the sixth century the trapezoidal sarcophagus was the only one in use;¹ then at some time, perhaps about the middle of the century, the rectangular sarcophagus came back into use in a more elaborate, highly decorated form, possibly for richer customers: this rectangular sarcophagus may have been in use side by side with the trapezoidal sarcophagi till the end, but those which have been preserved for us seem to be earlier in style than the latest of the trapezoidal. The sequence of the trapezoidal is fairly complete; it begins with one in the National Museum of Stockholm (Pl. IV. B, *Jahrb.*, 20, p. 191) which must be but little later than the early rectangular sarcophagi; the sequence continues through the varying phases and different techniques up to the end of the sixth and on into the fifth centuries.

Kjellberg has given a list of the early rectangular sarcophagi of class C (*Jahrb.*, 41, p. 52). To these I can add another sarcophagus in the Ashmolean (Pl. III) which the keeper kindly allows me to publish. This came from Clazomenae. Like the others, it is long (1.87 m.) in proportion to its width (0.58 cm.); it is shallow (31.5 cm.); the four sides of the narrow edge (9 cm.) are of equal width.

This class C is especially interesting in the history of Clazomenian art, as showing the earliest phase which lies behind and explains the old-style pictures of the later trapezoidal sarcophagi. It is at this stage that Clazomenian art is nearest to Camiran, and for this reason it is important to examine carefully the motives on these sarcophagi and look for their parallels in the Camiran style. It is these parallels which help us in the dating of the sarcophagi. The Ashmolean sarcophagus is possibly one of the earliest of the rectangular sarcophagi, for there is in it no difference in style between the pictures at the top and at the bottom, as there is in the unspoilt Athens sarcophagus. The style of the Ashmolean sarcophagus is despicable, the drawing is rough and unintelligent: the wild goat with coarse, heavy legs bent beneath his body is a travesty of the Camiran wild goat with his fine fetlocks and delicate hoofs. The artist, not certain of his style, is here trying experiments with techniques: in the top picture, the paws and legs of the long-faced lion are in complete silhouette: in the lower picture the off fore-leg of one lion is spotted as though it were the leg of a panther, the face like that of the lion in the top picture is in outline technique, but the lion on the other side of the bull has the legs in

¹ I have suggested that the trapezoidal shape for a time supplants the rectangular: it is possible that the second sarcophagus in Athens (*B.C.H.*, 1913, p. 392) may refute this: the condition is so bad that it is difficult to estimate the style. In the upper picture the presence of four animals,

two wild goats, two lions, means that the animals must be shorter, therefore perhaps later; in the lower picture the asymmetry of the scene—a lion in attack in front of an elaborate palmette and volute pattern—also suggests a later date.

silhouette and his head is in outline technique, the mane being indicated by dotted lines.

The use of outline technique, which survives for the old-style pictures till the very end of the trapezoidal sarcophagi, is very capricious both in early Clazomenian and Camiran styles for certain animals. In Camiran style the wild boar is often in almost complete silhouette (Fig. 2): sometimes the face is in outline technique (Fig. 3); the lion is never in complete silhouette, usually the head is in outline technique and the mane is indicated by network or by criss-cross lines (Fig. 2): rarely the face alone is in outline technique (*J.H.S.*, 46, Pl. 9 and *Vroulia*, p. 221). In the old-style pictures of the sarcophagi the wild boar and the lion have the face only in outline technique: the lion on the Ashmolean sarcophagus is a rare exception. The unapollit Athens sarcophagus (*B.C.H.*, 1913, p. 390), 2.02 × 0.75, is later. This is the work of a good artist; the style of his pictures is on a level with that of good Camiran. In this sarcophagus we have a difference of style in the two pictures: the earlier style is kept for the bottom picture: here between lions there is the long, lean wild goat like the wild goat in the earlier phases of Camiran style (*Vroulia*, p. 198); in the top picture between lions there is a wild boar, which in East-Greek art appears later than the wild goat: the animals in this picture are rather shorter and of stouter build, and more modern than the animals in the bottom picture. The wild boar, like the wild goat, might have been drawn by a Camiran artist, it so closely resembles the wild boar on a plate in the British Museum (Fig. 3): both have the many-petalled star in the centre of the body, the long mane all down the back, the long, thin face in outline technique: the break in the mane of the wild boar on the Athens sarcophagus is often found in East-Greek art: the wild boar on a Naucratis chalice has it (Fig. 4).

The lions on this sarcophagus are much of the same type as the lions on Clazomenian vases (*Ant. Denkm.*, II, Pl. 55): both have the up-standing hairs down the neck and above the tail. The lions are longer and leaner than the lions on most of the Camiran vases: the nearest parallel for the lions, especially the frontal-faced lions of the later sarcophagi in Camiran style is the frontal lion on a plate in Florence of late style (*Vroulia*, p. 221).

The field-ornaments of the Ashmolean and Athens sarcophagi are mostly different, but all are from the East-Greek repertory, and all can be paralleled on Camiran vases. Those of the Ashmolean sarcophagus are as coarsely and roughly drawn as are the animals: those of the Athens sarcophagus are as good and as fine as on any Camiran vase. Only three of the field-ornaments need special mention. The triangular roundel on the Ashmolean sarcophagus, which we shall see again on a trapezoidal sarcophagus in Stockholm (Pl. IV. A), is, I believe, a special form of roundel belonging to a local Asia Minor Camiran style; it is found on a fragmentary dish from Larissa in Aeolis (Boehlau, *Nekropolis*, p. 87): it occurs also on an oinochoe of unusual style in Berlin (No. 295, Prinz, *Naucratis*, Pl. 2). The roundel without a boundary line on the Athens sarcophagus is found on a Camiran plate with a picture of a bull (Salzmann, *Camirus*, Pl. 50). The two unusual pear-shaped ornaments in the bottom picture of the Ashmolean sarcophagus can be paralleled on a plate in



FIG. 2.—JUG FROM CAMEIROS (British Museum).



FIG. 3.—PLATE FROM CAMEIROS (British Museum).

the Louvre (*Vroulia*, p. 221). For the rest, the tongue or egg-pattern set in the panel above the cable on the Ashmolean sarcophagus is a favourite pattern on Clazomenian sarcophagi and vases. It takes the place of the animal picture at the base of an early trapezoidal sarcophagus in Stockholm (*Jahrb.*, 20, p. 195). It has many parallels in Camiran and all East-Greek styles.



FIG. 4.—VASE-FRAGMENT FROM NAUCRATIS (British Museum).

The lotus flowers with palmette filling and buds, both set on short stalks, are like those on Arndt's sarcophagus: we find the same form of the lotus on the inside of a Camiran dinos, found at Vroulia, of late incised style (*Vroulia*, Pl. 24), and on a fragmentary bowl in the British Museum (Fig. 5).

The cable with inset palmette which so often decorates the long sides of



FIG. 5.—VASE-FRAGMENT FROM NAUCRATIS (British Museum).



FIG. 6.—VASE-FRAGMENT FROM NAUCRATIS (Oxford.)

the edge is found also on the rim of a late Camiran plate in the Ashmolean (Fig. 6).

The palmette pattern set at the top of the cable on one side of the Athens and on both sides of the Ashmolean sarcophagus is a variety of the same palmette pattern, which is so often found on bowls and also on other vases of a late phase of Camiran style (Boehlau, *Nekropolen*, p. 83).

This close resemblance to the Camiran style is not confined to the rectangular sarcophagi: the animal pictures on our two sarcophagi find a near parallel on

a trapezoidal sarcophagus in Stockholm (Pl. IV. A; *Jahrb.*, 20, p. 191). This must be among the earliest of the new shape: the length is still great in proportion to the width (l. 2.15; v. top 0.74, bottom 0.68): the four sides are of equal width and there are animal pictures at both ends. The scenes are the same as those on the Athens sarcophagus, but the style of the pictures shows that the Stockholm sarcophagus is later. The animals in the new-style picture at the top are shorter and heavier and the field-ornaments more elaborate than in the corresponding picture of the Athens sarcophagus; so, also, the animals and field-ornaments in the old-style picture at the bottom are of later style than those in the corresponding picture of the Athens sarcophagus. The wild goat, too, in the panel above the cable-pattern is of new style; not like the wild goat in the bottom picture or like the wild goat of the Athens sarcophagus, but like the wild goat of the later phases of the Camiran style, which takes the place of the old, long, lean wild goat on such later pieces as the Lévy oinochoe (France, *C.V.*, Pl. 22) and an oinochoe in Munich (Sieveking u. Hackl, *Cat.*, p. 42), and on still later pieces (Fig. 2).

The style of animals in this panel on the sarcophagi is of importance for dating. Just as, generally, there are the new-style pictures at the top end, so in these top panels we often get the new-style animals, and later too the outline-heads, of contemporary art: in the bottom panels there are the old-style animals, corresponding to the old-style pictures at the bottom of the sarcophagus. Thus, on a sarcophagus in Hanover (*Ant. Denkm.*, ii, Pl. 27), we find in the top panel a spirited ibex in B.F. style, while in the panel at the lower end there is the East-Greek wild goat. The lotus flower with palmette filling and buds on the Stockholm sarcophagus are like those on Arndt's sarcophagus, except for the bands of reserve which intersect the petals: the same version is found on another, later, sarcophagus in the British Museum (Walters, *Anc. Pottery*, Pl. 27). There is no exact parallel in Camiran style; the nearest is on the neck of a late dinos found at Vroulia (*Vroulia*, Pl. 15): on this bands of red between incised lines intersect the petals and buds of a late flower-and-bud wreath.

Kjellberg calls the sarcophagus style Milesian (or Camiran): I prefer to call it Clazomenian, for this is the early Clazomenian version of the East-Greek style. This style was composed in one or several centres out of many different elements, some geometric, some—these perhaps the early animal pictures—created on the spot, some borrowed from various sources in the East: the style was taken over and individualised in various parts of the East-Greek world. Hence, in East-Greek art we can distinguish the different styles: a Camiran style, which is the earliest and simplest expression of the East-Greek style: this Camiran style was, I believe, not confined to one locality, but was elaborated and individualised in several centres and several workshops in those centres. Closely connected with the Camiran style, and in its early phases hardly to be distinguished from it, there is the Nauratite-chalice style. The Fikellura is the latest and the most conservative of the East-Greek tradition. The Clazomenian style is, as we have seen, for one brief moment like the Camiran, but it has a different personality behind it: the style quickly breaks away from the old tradition.

The Clazomenian artist, though he never ceases to be East-Greek, breaks fresh ground. He is perhaps coarser-fibred than the other East-Greek artists, with less understanding and sympathy in his animal pictures; his drawing is less delicate, his animals are often clumsy and artificial. No Camiran or Naucratis or Fikellura artist would have drawn the wild goat on the Ashmolean sarcophagus with the star on his body, or would have given the wild goat a patterned hide like the hide of a bull (*Ant. Denkm.*, ii, Pl. 28). If this is true of the animal pictures on the early sarcophagi, much more is it true of the later old-style pictures, which are generally set at the lower end of the trapezoidal sarcophagi. These pictures are there, in the lowest place, to keep the tradition alive, but often they are travesties of that early East-Greek art. What the Clazomenian artist cares for is what he learns, perhaps from the West: he is not content with mere decoration of the surface, he wants to tell a story and depict life as he sees it in his own country. He comes to his own in the splendid, vivid scenes drawn from the lives of men and of gods, which he paints in his new B.F. style, and in the spirited animal pictures which he sets in the panels above the pattern strips on the long sides of the sarcophagus. In the use of field-ornaments, the Clazomenian artist begins by selecting and copying some of the best from the East-Greek repertory, but he soon coarsens them as he coarsens the animals: they become over-elaborated and over-weighted and lack the rhythm, orderliness and delicacy which are so characteristic of the other East-Greek styles. Like the painter of the Clazomenian vases, the sarcophagus painter cares but little for floral ornament: the early lotus-flower-and-bud wreath of the Camiran style is never found on a Clazomenian vase or sarcophagus: the late decadent form on Arndt's sarcophagus and on the sarcophagus in Athens is found again, I think, only on a sarcophagus in the Louvre: here it is inset in the cable pattern (*B.C.H.*, 1895, Pls. 1 and 2). It is nearly as rare on Clazomenian vases: there is a late lotus-flower-and-bud wreath on a neck-amphora in Tübingen (Watzinger, *Gr. Vas.*, Pl. 2) on some of the dinoi (*B.C.H.*, 1893, p. 474), and on the Castle-Ashby vase of the Northampton group (*Burlington Cat.*, Pl. 90). For both the sarcophagus and the vase painter the human element early becomes predominant at the expense of all else.

I cannot believe that Kjellberg is right in his dating of the early rectangular sarcophagi (*Jahrb.*, 41, *loc. cit.*). He divides them into two classes: in the first class he puts those which, like Arndt's, have only floral decoration, in the other class he puts all those with animal pictures; the first class he thinks may be as early as the beginning of the seventh century. This seems to me impossibly early. I do not think, to begin with, that there is any reason why the sarcophagi with floral decoration should be earlier than the others. In the Camiran style it is the earliest pots which have animal pictures as their chief decoration, it is only in the later phases that we find a wreath taking the place of the animal picture (*Vroulia*, p. 202) or patterns used as the sole decoration of a vase (*Vroulia*, p. 236). Every element in the decoration of these rectangular sarcophagi is against this early dating. The lotus-flower-and-bud wreath on Arndt's sarcophagus is a decadent and late version of the early Camiran wreath, the central petals are no longer

part of the flower but are detached. This decadent version only comes in at the end of Camiran style A, that is, before the new B.F. style comes in in the last quarter of the seventh century (Price, *East-Greek Pottery*, p. 15); its first appearance is probably on a transition-style oinochoe in the Louvre (*Vroulia*, p. 226): from this time, it is the usual form right through to the very end of the Camiran style.

The lotus flower with palmette filling on Arndt's sarcophagus and on the sarcophagus in Athens is a late form: it is more highly conventionalised than the lotus-palmette-filled wreath on most of the Camiran vases (*Vroulia*, p. 202), and is paralleled only on vases of a later phase of Camiran style (*Vroulia*, Pl. 24).

I have shown that the cable with the palmette filling finds its parallel on the rim of a big plate in the Ashmolean, a shape which I believe, with Kinch (*Vroulia*, p. 221), did not come in till the later phases of the Camiran style.

Again, the field-ornaments, especially the elaborate scalloped roundels, are the field-ornaments of the middle and later phases of the Camiran style. The groups of strokes which hang from the top line and are set on the base line are found only in the later phases of Camiran style A, not earlier than the third quarter of the seventh century.

If further evidence is needed to show that Kjellberg's dating is half a century too early, there is not only the style of the animals to which I have already drawn attention, but there is the selection of the animals for the pictures. I believe that the lion is never found in the earliest phases of Camiran style: on the early oinochoai there are only wild goats, fallow deer, ducks or geese, dogs, sphinxes and griffins: the lion makes his first appearance, perhaps, on an oinochoe in Berlin (No. 2945); this oinochoe belongs to the same class as one in Copenhagen (*Vroulia*, Fig. 89), a class which must belong to the very end of the early phase of Camiran style.

The wild boar comes in later than the lion: I think his earliest appearance is on an oinochoe in the British Museum (Fig. 2).

All the evidence, I think, therefore, points to a date not earlier than the last quarter of the seventh century for these rectangular sarcophagi: Oikonomos' new find may, of course, provide earlier examples.

E. R. PRICE.

HERODOTUS AND THE RECONSTRUCTION OF HISTORY

IN selecting for the purpose of illustrating Herodotus' conception of the proper relation of ἀπόδειξις to λόγῳ his account of the Lydian emigration to Italy, I have not had in mind the requirements of the Etruscologist alone. The Lydian setting of the story raises the whole question of the sources for the reconstruction of the Dark Ages of Aegean history which Greek historians, at the time of Herodotus and earlier, had at their disposal.

It is well known that from the point of view of Etruscologists this migration story, which is usually accepted by them as a genuine tradition of origin, is dated five centuries too early;¹ and although the arguments of Dionysius of Halicarnassus, which mainly stress the total dissimilarity of Etruscan and Lydian culture, are insufficient reason for discrediting Herodotus after the lapse of so many centuries and in an age when philology was not a science, to suppose without further investigation a mistake of 500 years is not only unfair to Herodotus, but may remove whatever basis of fact the tradition originally contained. The following attempt to explain the discrepancy involves the rejection of the whole story in Herodotus (I. 94) as having any bearing upon the Etruscan problem. It should, however, be borne in mind that this does not necessarily dispose of the Lydian hypothesis altogether, but merely calls into question its claim to preferential treatment among the various traditions which, from the time of Stesichorus onwards, brought Trojans or other non-Greek inhabitants of Asia Minor to settle in Italy.

The ultimate origin of that part of Herodotus' story which deals with the migration is not likely to be traceable to definite information obtained by him about Lydia. For it can scarcely be doubted that Herodotus and all his contemporaries had inherited a general supposition with regard to the origins of the non-Greek population of Italy and parts of Sicily, which was based on no definite evidence, but merely on the desire to explain what became of the Trojans and their allies expelled from the coasts of Asia Minor, or of the Pelasgi expelled by the first Achaean invaders at a still earlier period. It was a generally accepted belief—accepted, for example, by the Cretans at Praesos²—that the Trojan war had resulted in a general famine and in the depopulation even of the great Aegean islands as well as the Asiatic coast; and the evicted populations had to be, and still have to be, accounted for somehow. But the theory of a

¹ The arrival of the Etruscans in Italy is dated by Randsall MacIver (*Villanovan and Early Etruscan*) at the end of the ninth century B.C., by Ducati (*Etruria Antica*, p. 48) a century later. Herod. I. 7 dates the

migration from Lydia at least 505 years before Gyges, i.e. thirteenth century B.C., at the latest.

² Herod. vii. 171.

general exodus to the west is probably on a level with the Cretan belief that the eviction of Minos (i.e. the destruction of the palace at Cnossos) had its sequel in a Cretan exodus to Sicily.³ All these stories are simply Greek versions of the puzzle of the lost tribes of Israel: the survivors are located wherever there is thought to be room for them. Civilised barbarians—the claim of the Maxyes of North Africa who painted themselves vermilion could scarcely be taken seriously⁴—such as the Τυρσηνοί and other tribes of Italy north of Magna Graecia were recognised to be, were readily identified as Trojans, Phrygians, or Lydians. Thus arose the various genealogies, invented to explain the connexion, which afterwards found their way into the comprehensive pages of Lycophron; and of these genealogical poems we have an example of Herodotus' own time in the *Phoronis* of his friend⁵ Hellanicus of Mitylene. According to the *Phoronis*, the Τυρσηνοί were descended from Pelasgi, who came probably from the district between the Caicus and the Hermus, founded Spina on the Adriatic, and thence penetrated inland to found Cortona, the metropolis of the Etruscans. This version, which agrees with the story of Herodotus in bringing Τυρσηνοί from this part of Asia Minor ἐξ Ὀμβρικοῦς, but builds the whole story on Homeric genealogies,⁶ strongly suggests a common origin for both in commonly accepted belief as to what became of the original inhabitants of the part of Asia Minor overrun by Achaeans in the Trojan war or earlier.

But if I am right in supposing that it was part of the general purpose of Herodotus to obtain further information on this subject of the dispersal of the pre-Achaeans of Asia Minor, it follows that the specific connexion between *Lydians* and Τυρσηνοί was an accidental consequence of inquiry into the ancient history of Lydia; for the general hypothesis had up to this time⁷ no reason for supposing Τυρσηνοί to be Lydians rather than any other non-Greek people of western Asia Minor. Indeed, when the sources of the actual narrative in Herodotus are examined, it will be found that this story has no specifically Lydian foundation whatever, and that, although the information obtained by Herodotus should have enabled him to draw certain legitimate conclusions about the earliest history of Lydia, this story of the immigration into Etruria is not one of them.

Herodotus has quite clearly found it hard to obtain information on Lydian history of any period. For the history of the Mermnad dynasty he seems to have relied chiefly on Milesian sources, to judge from the disproportionate part which Miletus plays in the story of the exploits of these kings. When Miletus fails, Herodotus is first thrown back upon information to be derived from the priests of Cybele at Sardis, and the result is a jumble of Phrygian cult-myths. He then turns apparently to Persian informants, who were ready to give a broad general outline of the history of ἡ ἀρχαία Ἀσίη before the rise of Persia, but scarcely

³ Herod. vii. 170.

⁴ *Ibid.* iv. 191.

⁵ Suidas, s.v. Ἑλλάνικος.

⁶ Hellanicus, ap. Dion. Hal. i. 29. Cf. Lycophr. *Alex.* 1242-1249. "Teutamides," the father of their leader Xanxus, is faked from Πελαγίος Τεαταίδης of *Il.* ii. 843. For

the location of his kingdom between the Caicus and Hermus, cf. Strabo, xiii. 3. 2.

⁷ Whereas Myrmilus of Lesbos (?) follows approximately the genealogy given by Herodotus, tracing the descent of Lydus and Tyrrhenus from Manes and Cotys (ap. Dion. Hal. i. 27).

competent to deal with the earlier history of a country with which they did not come into contact until the time of Cyrus. Reliable guidance in chronological matters was obtainable from Egyptian records; but since the Ramessid empire had no more had direct contact with Asia Minor west of the Halys than the Assyrian, it is hard to see how Egyptian chronology could contribute anything to the knowledge of the internal history of Lydia. The question of how Herodotus, who can be proved to have used these sources and no others, has contrived to assemble so much outwardly convincing information on early Lydian history will be best answered by a brief examination of the contribution made to his story of the famine in Lydia and the consequent emigration to Italy by each of these sources in turn.

THE SOURCES OF HERODOTUS. I. 94.

I. *Phrygian folk-tale*.—Herodotus nowhere directly mentions the priests of Cybele at Sardis as authorities for any part of his Lydian history. But the exaggerated importance which he attaches, throughout his history of the Persian wars, to the burning during the Ionian Revolt of the temple of 'the local goddess Cybele' (V. 102) at Sardis puts it beyond a doubt that these priests supplied him with much of the material for his 'history' of Lydia; and part of the same genealogical tree presently to be discussed as the foundation of Lydian history is referred to by Herodotus later, in another connexion, in such a way as to make clear its Sardian origin.*

The result is what might be expected—the incorporation of a set of cult-myths connected with the Mother Goddess in what purports to be an historical narrative dealing specifically with Lydia. The story of Adrastus, the Phrygian from the country of Midas and Gordias,⁹ and Atys the son of Croesus at the boar hunt, is a glaring example; for obviously Adrastus is a perversion of the Μητήρ Ἀδραστος or Cybele herself,¹⁰ who has undergone a metamorphosis to suit Greek notions of the meaning of the name, while Atys is no son of Croesus, but the god Attis, who according to one legend was slain by a boar. Similarly, when we find the story of the Lydian migration introduced by Herodotus with the words 'in the days of Atys the son of Manes,' it is clear at once that his informants really meant the Phrygian gods Men and Attis. A new 'dynasty,' beginning with the suggestive name of Ἀγρων τοῦ Νίνου τοῦ Βήλου (I. 7) really marks the advent of a new religion with a 'hunter-god' of supposed Assyrian and Babylonian or Phoenician antecedents. The dynasty of the Heracleidae is, however, probably not the contribution of the priests of Sardis, but comes from a similar Persian source.

This method of reconstructing 'history' can be elaborated, and was elaborated, within the limits of the cult. Relatives were invented for the greater

* Herod. iv. 45: . . . Ἀνδρῶν, φάσιναι περὶ Ἀσίδων τοῦ Κόρυτος τοῦ Μάνου ἐκλήσθαι τὴν Ἀσίην . . . ἀπ' οὗτος καὶ τῆς ἐν Σάρδεις πόλεως ἐκλήσθαι Ἀσιάδα.

⁹ i.e. the Pessinus region. Cf. Strabo

xii. 5, 2.

¹⁰ Cf. *B.C.H.* xi. (1887), p. 349. On the temple of Adrasteia at Cyzicus cf. Strabo, xiii. 1. 13.

gods in the shape of minor local deities of various Phrygian towns. Thus 'Cotys,' the god of Cotiaeson, a town located by the Pentinger Table near Acmonia in the upper Maeander valley,¹¹ appears as a brother of Atys in Herodotus; while Xanthus, the *καταρκωτής* of Lydian history and a contemporary of Herodotus, calls one of the sons of Atys 'Torrhebus.' Torrhebus, like Cotys, is a god, this time of a town of the same name somewhere in the Middle Maeander valley. The existence of the town 'named after Torrhebus,' who was famous as the inventor of *τορρηβία μέλη*, is attested by Stephanus of Byzantium (s.v. *Τόρρηβος*) and confirmed by the appearance of the lyre-playing god, together with his name, on the coins of Phrygian Hierapolis.¹² When Xanthus is further quoted as explaining that while the true Lydians were descended from Lydus (who also appears as one of the two sons of Atys in Herodotus), the descendants of Torrhebus were the Torrhebians, a tribe who spoke a language 'differing from Lydian as Ionian from Dorian,' it becomes still more evident that his informants were really speaking of the god of this Phrygian town.

How are we to explain the discrepancy between the pre-Heraclid dynasty of Lydia as reported by Xanthus and as reported by Herodotus? The name of the second son of Atys according to Herodotus was not *τορρηβός* but *τυρσηνός*, and he migrated to Italy and founded the cities of the *τυρσηνοί*. Herodotus has not, however, been guilty of misquoting the traditional name in order to fit the theory, for *τυρσηνός* also has the best *Phrygian* credentials, being simply a cult-name of Attis. In the excavations of 1886 at Pergamon a letter of Attalus II was discovered, granting *ἐπὶ τέλει* *προβότων* to the priests of 'Apollo Tarsenos' there;¹³ and from the occurrence of the same cult-title attached to Cybele ('Meter Tarsene') at Kula near the river Hylus on the borders of Phrygia and Mysia, it appears that the Hellenistic cult at Pergamon belongs to the original Phrygian stratum of religion centred round the worship of the mother goddess. We can scarcely doubt that the *τυρσηνός* of Herodotus is identical with the *ταρσηνός* and *ταρσηνή* of the inscriptions, as also with what are apparently the alternative forms *Tarsios* and *Tarseus* in the same locality of Kula, pointing to a survival of a tribe-name which gave rise to the epithet (cf. *Zeus Karios*, and *Apollo Torrhebos* above) in the people of Tarsus in Cilicia.

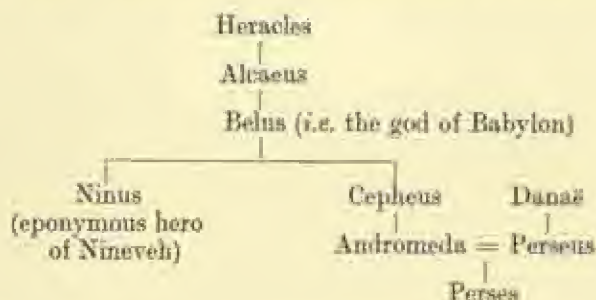
II. *Persian Sources*.—We have seen that the first Lydian 'dynasty' is an invention of Phrygian priests at Sardis. No less certainly is the second dynasty, that of the 'Heracleidae,' the invention of *Περσέων* or *λόγιοι*, who, to judge from the nature of their information, were probably priests too. For the genealogy of 'Agron the son of Ninus the son of Belus the son of Alcaeus the son of Heracles' (I. 7) is part of the same tree as the official Persian account of

¹¹ Cf. Ramsay, *Cities and Bishoprics of Phrygia*, Vol. II, p. 588 n.

¹² Houd, *Hist. Num.*, p. 565 (*Μέγας* and *Τόρρηβος*), and Drexler's note (in *Nesos Jahrb. Phil.*, cxlv, (1892), p. 842) on a similar inscribed coin. Boethius, *Inst. Mus.* 20, has the name '*Corcebus* Atys filius,' but cf. *Plut. Mus.* 15, Xanthus ap. *Dion. Hal.* I. 28.

¹³ For *Apollo Tarsenos* at Pergamon cf. *Ath. Mitt.* xxiv, p. 213; for *Meter Tarsene* at Kula, Keil, *Die Kulte Lydiens*, in *Anatolian Studies presented to Sir W. Ramsay*, p. 251, and *Musée Belge*, xi, p. 133; for *Apollo Tarsios* and *Apollo Tarsenos* at Kula, Keil *loc. cit.*; for the possible connection of all these cult-names with *Tarsus*, v. p. 94 and note 22 below.

their own descent through 'Cepheus son of Belus' (VII. 61) and 'Perses son of Persus' (VII. 150). The whole genealogy was given as follows :



Just as Perses the son of Persus and grandson of Danaë is tacked on at one end as a political bait to Argos (cf. οὕτω δὲ εἰρηπὴν ὑπέτερον ἀπρόγονοι, in Herod. VII. 150), so Heracles and Alcaeus were attached at the other, presumably to persuade Sparta of Persian good-will. The germ of truth in the genealogy is probably the merging of the various religions of the Land of the Two Rivers into one Assyrio-Persian worship of Aphrodite Urania (i.e. Ishtar) according to the process of syncretism described to Herodotus and reported by him.¹⁴ 'Agron the son of Ninus the son of Belus' can then be none other than the consort of Ishtar, correctly enough described as 'the Hunter-god.'¹⁵

But what has this to do with Lydia? Clearly, nothing whatever, except that it is true enough that the Assyrio-Persian religion did spread into Lydia as the Assyrian conquests advanced westwards.¹⁶ We can only suppose that Herodotus obtained this part of his story from Persians resident in the Lydian capital. Whoever they were, they were unable to give him any idea of dates, but fired him with so intense a zeal to find out more about this Asiatic 'dynasty' of Heracleidae that he not only made exhaustive inquiries about the antiquity of the temple of Aphrodite Urania at Askalon,¹⁷ but undertook special journeys to Tyre, and afterwards to Thasos, for the express purpose of finding out the 'date' of the Phoenician god to whom his informants gave the Greek name of Heracles.¹⁸

III. *The Egyptian Evidence.*—Whatever the order of his journeys, Herodotus came to Egypt with his problem of the Heracleidae still unsolved. But when he came to Egyptian Thebes, he came without knowing it to the fountain-head of all the widespread traditions—Cretan included—about the dispersal of the inhabitants of the coasts and islands of the Aegean at the time of the Trojan war. The basis of them all must have been the Theban records of the sea-raids on Egypt in the reign of Rameses III.

This conclusion I shall now attempt to establish from the following

¹⁴ Herod. i. 131.

¹⁵ On this subject see Eiserich's work, *Orpheus the Fisher*.

¹⁶ Keil, *op. cit.*, p. 256 (on worship of Anahis and Persike Thea).

¹⁷ Herod. i. 105.

¹⁸ *Id.* ii. 44.

considerations:—(1) Herodotus actually saw the temple of Rameses III in Thebes, together with the reliefs which still remain on its walls, and heard from the priests in charge of the records a description of the scenes represented. (2) He proceeded to establish the chronology of his supposed Lydian dynasties, on the basis of the descent upon Egypt, from these Egyptian sources.

Now Herodotus, while at Thebes, had every chance of being told the story of the invasions under Rameses III; and, in fact, it would have been very strange if he had not heard it, seeing that he was shown all the other sights of Thebes, and that this temple, built by Rameses III as the great national memorial of his exploits against the invaders, was one of the most famous. Further, his chief informants, the priests of 'Hephaestus,' must actually have been the priests of this very temple. This is clear from the description which Herodotus gives of their temple, with its double propylaea on east and west, and of the colossi said to represent summer and winter before the entrance on the west.¹⁹ The ascription of the priests and temple to 'Hephaestus' is easily explained, for Herodotus' description of the *εργαλεια* of this god in question as *πυργαίου ἀνδρός μίμησις* (III. 37) completes the identification with Ptah, the Egyptian god of smiths, in his later form as a bandy-legged dwarf indistinguishable from Bes; and we know that Rameses III, although he actually dedicated the temple to Amon, paid special honours to Ptah in its construction, and also placed a statue of Ptah, with a dedication to him, in a prominent place at the entrance to the first court of the temple, the first statue which a visitor would see.²⁰

Herodotus, then, was shown over the very temple on the walls of which Rameses III ('Rhampsinitus') had had the records of his exploits against the invaders carved in relief: in fact, the historian expresses his special admiration of the reliefs on the east end of the same temple, wrongly ascribing them, however, to Mycerinus, who is apparently one of the Pyramid-builders. He was also taken to see the treasure-house of 'Rhampsinitus,' which adjoins the south side of the temple, and still stands; and it is evidently the wonders of this building, and the evidences of stupendous wealth which he saw there, which prevented the traveller from gauging the relative importance of the various pieces of historical information he had received from the priests. A more detailed account of what they told him would have been a notable contribution to the historical knowledge of his time.

The importance and the contents of the records of the Rameses temple have been too often discussed to need repetition here.²¹ It is sufficient to notice that the account of the Syrian war undertaken by Rameses III late in his reign mentions as his enemies the same 'peoples of the sea' who together invaded Egypt from Asia Minor in the reign of Merneptah and again gives a prominent place to Shardina (people of Sardis?), Shakalsha (Sagalassians of Pisidia?) and 'Tr'sh,' who are not *Τυρσηοί*, but most probably 'men of

¹⁹ *Id.* II. 121, 136 *int.* Cf. Breasted, *Ancient Records of Egypt*, iv. 10, 191. The colossi have now disappeared.

²⁰ Breasted, *loc. cit.*

²¹ Cf. *sup.* Breasted, *op. cit.*, iii. § 580, and iv., p. § ff.

Tarshish.²² The cause of their invasion had been widespread famine: 'they spend their time going about the land fighting to fill their bodies daily; they come to the land of Egypt to seek the necessities of their mouths.'²³

It remains to be shown that this is the famine which Herodotus has projected into his history of Lydia, and made the cause of an emigration (via Egypt as one of the 'many countries') to Italy. If it can be proved that in the dating of his early Lydian history Herodotus has used a characteristically Egyptian and un-Greek system of chronology which actually dates the Lydian famine to the period of these sea-raids, the story of the sources of this early Lydian history will be complete.

Now it is odd that Herodotus, who elsewhere invariably reckons three generations to a century,²⁴ should ascribe to the twenty-two Heraclidae in Lydia a dynasty lasting only 505 years, which allows them a negligible fraction under 23 years each. This seems doubly peculiar in that he gives the five Mermnadae who follow them an average reign of exactly a third of a century each, 170 years altogether, counting the 'three extra years' which Apollo allowed to Croesus. One is tempted to think that the chronology of the two Lydian dynasties comes from the same source and should therefore be reckoned on the same system; the more so, in that in the case of the Mermnadae the method of Herodotus makes the dynasty begin a generation too early, as comparison with Assyrian records will show. If we assume the date 546 for the fall of Croesus (since this particular controversy does not affect the general argument), Gyges, according to Herodotus, begins his 38 years' reign in 716; according to the annals of Ashurbanipal he sends troops to help Psammeticus; and Psammeticus, on Herodotus' own reckoning, supported by Egyptian chronology, cannot have 'shaken off the yoke of my lordship' (to quote Ashurbanipal) until 669. If, on the other hand, we allow an average of 23 years for the Mermnad kings, the dynasty will begin in 661, which agrees with the other evidence, and the reigns of the twenty-two Heraclidae 505 years earlier, in 1166 instead of 1221. On this reckoning the rise of the Heraclid dynasty would be precisely dated from the end of the reign of Ramesses III (1197-1167); for the Theban priests would naturally assume that the population of Lydia changed as a result of famine and emigration,²⁵ and that this new 'dynasty of the Heraclidae' (i.e. the anachronistic contribution of the Persians) mentioned by Herodotus was a consequence of the repopulation. Even the duration of the famine in Lydia for eighteen years (l. 94) before the

²² Tr'ah = 'men of Tarshish'; i.e. of Tarsum in Cilicia. Cf. Joseph. *Ant. Jud.* i. 127. Θαρσής αὐτοὶ γὰρ θελούμεν τὸ πολλὸν ἢ Κίτιον σημαίειν ἑ. Ταρσός γὰρ παρ' αὐτοῖς τοῦ πάλλειν ἢ ἀβελλογενέτη καλεῖται, μακρότερος οὖσα, τὸ τοῦ πρὸς τὴν κλίσει ἀντὶ τοῦ θῆτα μεταβαλλόντων (i.e. because the native word was impossible for Greeks to pronounce). Τυρσηνοὶ or Ταρσηνοὶ looks like another attempt (cf. above p. 92 and note 13). Cilicians are suitable 'brothers of Kittim' (Cypriotes) and 'Rhodanum' (Rhodians, cf. *Græciæ*, x.

4), and their ancestors, perhaps from further north, may well have taken part in this invasion of Egypt.

²³ Bressaut, *ib.* § 580; cf. *ib.* § 129.

²⁴ Herod. ii. 142: γυνεὶ γὰρ τριῶν ἀνδρῶν ἑκατὸν ἐνέστιν.

²⁵ Hence Herodotus (i. 7) supposes the 'Macedonians' to change their name to Lydians in the generation of the migration. The significance of the change was a controversial question later. Cf. Strabo, xii. 8. 3.

final departure for Italy seems to fit the story of the Egyptian priests, for it would thus date the beginning of the raids from Asia Minor and Syria in 1194 B.C., Eratosthenes' date for the fall of Troy and the famine associated with it. The priests thought that the records of the defeat of Shardina threw light on Lydian history, but however correct their own astronomical data, could only convey the date of the defeat approximately in generations to a Greek.²⁶

We now appear to have found the right clue to the relation between Herodotus' famine in Lydia and the invasion of Egypt, for an examination of the Egyptian system of chronology, as reported by Herodotus, reveals the significant fact that in the fifth century B.C. they actually did reckon a generation at about 23 years.

Herodotus says that he was shown 341 statues of kings, and as many of priests, in the temple of 'Hephaestus' at Thebes, each pair representing a generation. He goes on to say²⁷ that the reign of the last of these kings, Setho, was ended by the invasion of Sennacherib, i.e. soon after 667 B.C. Herodotus, on the Greek reckoning of three generations to a century, therefore takes the beginning of the Theban kingdom back 11,340 years (sic), beyond 12,000 B.C., with the further startling information that during that time—'according to the priests'—the sun had four times changed its course, and had 'twice risen where it now sets and set where it now rises.' That this addition is due to misunderstanding of an explanation of Sothic 1460-year cycles has long been recognised.²⁸ It is, of course, impossible to decide from the words of Herodotus alone—since he has recorded so preposterous an interpretation of the account he received—whether the priests referred to four *ends* of cycles, or to four cycles *completed* during the reigns of the 341 kings, during only two (A and C) of which (according to Herodotus' version) the sun appeared to travel from east to west, and during two (B and D) from west to east, changing again to its east-to-west course before the fifth century B.C. If the priests referred to ends of periods, the first ending-point would fall in 5701 B.C.;²⁹ if to completed cycles, the first would begin 1460 years earlier, in 7161 B.C. In either case the list of kings was made up to begin before the date in question. If, however, it was supposed to begin between 7161 and 5701, the average royal generation would be reckoned, *at its maximum*, at the improbably low figure (even for unhealthy Egyptian royal houses) of about 19 years; if between 8621 and 7161, the estimate would lie between rather under 24 and about 20 years.

We thus arrive at a result which supports the contention that the 23-year generation was an Egyptian chronological principle in the time of Hecataeus and Herodotus and not before; for there is good reason to suppose that the Egyptian

²⁶ 'Yarus (!), a certain Syrian,' on the evidence of the Harris Papyrus. Cf. Beasted, *Ancient Records*, iv, § 398.

²⁷ 341 in Herod. ii. 142. The number 345 given to Hecataeus (*ibid.* ii. 143) who must therefore have visited Thebes before the death of Amasis, includes also the first four Salte kings. Cf. also Herod. ii. 43, & 'Apsare

πασιθεωρα, 'to the beginning of A.'s reign,' referring apparently to the same conversation with Hecataeus.

²⁸ Poole, *Horae Aegyptiacae*, p. 94.

²⁹ According to Consarimus, a cycle ended in A.D. 139 (Petrie, *History of Egypt*, p. 250). The preceding cycles would therefore end in 1221 B.C., 2781, 4241, 5701, 7161 . . .

chronographers themselves arrived at their principle by averaging the reigns of the Saïte kings.³⁰

Herodotus, then, has reconstructed early Lydian 'history' out of Phrygian and Persian pseudo-genealogies, the content being supplied from Egyptian history, and the whole strung together on an Egyptian system of dating.

How far was his method universal, and to what extent has it influenced Greek tradition? To one aspect of this question the adoption of the same Egyptian chronology for the dating of the Minoan story in Crete, and also apparently by Hellanicus and the Sicilian historians on the subject of the arrival of Pelasgi in Italy,³¹ suggests an answer. We must suspect that all the earlier Greek tradition goes back, after the fashion of the more specialised researches of Herodotus, to Egyptian sources, and could therefore draw also upon Hittite records at second-hand.

To the further question of how far Herodotus and his immediate successors realised the basis of truth which lay beneath the type of information they received from Phrygian and Persian priests—namely, the fact of the spread of religion and culture by a dominant race—only further study of the Greek authors can give an answer. This rationalist view of the genealogising habit may not indeed have been altogether lost on Herodotus; otherwise it is hard to see why he attached so much importance to the 'age' of the Tyrian Heracles. But although he has put the 'dynasty' of the Assyrio-Persian religion after the emigration from (and consequent weakening of) Lydia, we can see that he has probably done so on the advice of the Egyptian priests, so that all uncensored genealogies of the same type in the Greek historians should be treated with the greatest suspicion.

K. M. T. CHRIMES.

ADDENDUM

ON THE METHOD OF DATING EMPLOYED BY HERODOTUS' EGYPTIAN INFORMANTS

The reigns of the six Saïte kings between 651 and 525, counting Psamtik III, who lost his kingdom after one year, average exactly 21 years; without Psamtik III, exactly 25 years. To split the differences between the two results, thus arriving at a 23-year average, would seem to the chronographers a fair estimate. Cf. also p. 96, note 27. But the argument only becomes cogent when taken in connexion with the deliberate application of the principle to early Egyptian chronology. The early chronicles do not, in fact, warrant the assumption of a 23-year generation; for example, the well-authenticated XIIIth Dynasty list of eight kings gives 228 years, averaging 28½ years each (cf. Breasted,

³⁰ Cf. Addendum.

³¹ Herod. vii. 171 (Creteans). The 'third (Egyptian) generation' before the Trojan war gives approximately the date of the destruction of Crete. Cf. also Hellanicus

and Philistus, ap. Dion. Hal. i. 22, and for transference of Cretean tradition into Italian history, cf. Vergil, *Aeneid*, iii. 142 (Iunone after the Trojan war), with Herod. vii. 171.

Records of Ancient Egypt, I. p. 222); in the XIXth Dynasty the average is about 25 years, in the XXth 27½ years. In view of the long period of foreign domination and universal destruction lasting for over 400 years before the Saïtes, most of the gallery of royal statues shown to Hecataeus and Herodotus must have been late forgeries; and their informants, being rather astronomers than historians, apparently knew very little about any other ancient records than the reliefs carved on their own temple. The calendars among the inscriptions of the Medinet Habu temple did in fact enable them to determine the dates of events in Rameses III's reign exactly; but precise Egyptian astronomical records could not well be communicated to Hecataeus and Herodotus.

K. M. T. CHRIMES.

AN ALLEGED ARCHAIC GROUP

[PLATES V, VI]

THE critics who have brought forward such arguments will, it is to be hoped, soon come to realise that once the sculptures can be openly submitted to the judgment of science, ill will it go with a scholar's reputation if his doubts of their genuineness are known.¹ With such quasi-papal thunder does a certain professor conclude his six-hundred-word panegyric of the group recently published by Studniczka² (Fig. 1). True, that at the time he wrote he had not seen the group. But since he goes on to declare that 'in dealing with works of this quality the judgment of style made possible by good photographs is even more important than the observation of technical details on the marble itself,'³ I do not hesitate to put forward a study based on such observation. For although judgment on aesthetic grounds is important, it has no ulterior sanction; and if I say—as I think—that the piece of sculpture is ugly and not of ancient style, this opinion may have as much or as little validity as the professor's, that the sculptor was a late archaic Greek and one who could hold his own with the best of his period.⁴

If this champion will meet the doubts which must arise in the mind of anyone who has studied the details of the marble itself, I will join issue with him on the aesthetic ground, and will try to explain why I think the group cannot possibly have emanated from the brain and hand of a fifth-century sculptor. These doubts arise from certain features, unimportant aesthetically, which could not, I think, be present in a genuine piece. Breaks, first. Across the left shoulder and breast of the male figure is a large fracture (Fig. 2, *a*), caused by some instrument, you might say the pickaxe of an excavator, were it not that the marks left by it postulate a very strange kind of pickaxe (Fig. 2, *b*; Fig. 3, *a*); and the broken surface, but for some dirt, is as when it was made. But between it and the base of the neck is another surface different from the first, yet not sculptured, but again broken; broken, but

¹ 'Hoffentlich kommen auch die Fachgenossen, die solche Gründe vorgebracht haben, bald zur Einsicht, denn wenn die Sculpturen einmal dem Urteil der Wissenschaft öffentlich unterbreitet werden können, wird es fuer den Ruf eines Gelehrten nicht gunstig sein, wenn bekannt wird, dass er die Echtheit angezweifelt hat.'

² *Jahrbuch*, 43 (1928), pp. 146 ff. The present owner of the group, with character-

istic generosity, has given his consent to this publication, though knowing it to be hostile.

³ 'Bei Arbeiten dieser Qualitaet ist die Beurteilung des Stils, die durch gute Aufnahmen ermoeeglicht wird, auch wichtiger als die Beobachtung technischer Einzelheiten am Marmor selbst.'

⁴ 'Jedenfalls koennte er mit den Besten seiner Zeit aufnehmen.'



FIG. 1.—THE GROUP, BEFORE RESTORATION.



FIG. 2.—BROKEN SURFACES.



FIG. 3.—BROKEN SURFACE.



FIG. 4.—BREAK, WITH HAIR CARVED UPON IT.



FIG. 5.—MAN'S HAIR.

thereafter treated with some strong corrosive until the surface is blurred like sugar-icing, and the edges rounded (Fig. 2, c). Another break, this time where the man's long locks of hair end on his shoulder (Fig. 4, above the line AB). A break? Yes, but again and yet more obviously not an innocent one: the surface has distinct marks of tooling, careless to a degree, yet undoubtedly produced by a thin metal instrument. One more thing worthy of note here: the end of one of the long locks has been carried over the break (I have marked the place by two arrows)—a break which cannot have been created until some years, and, if these strange marks are pickaxe marks, probably some hundreds of years after the archaic period.

Now, and most important of all, the actual execution of the piece, the way in which the marble is worked.

We happen to know something about ancient methods of workmanship, and our information demonstrates that in archaic times the drill was not used except to bore holes, that it was held steadily in one place while it revolved. No undoubted archaic piece of sculpture shows any other method. I illustrate four, from numberless examples, of the working of the hair in archaic times (Plate V, a-g), from which it will be seen that each channel in the hair is carefully chiselled out, not drilled.

The running drill is a different instrument from the ordinary drill, the point being moved along while revolving so as to produce, not a single circular hole, but a groove. Now the running drill was introduced in Athens (and there is no shadow of evidence to indicate that its use was anticipated elsewhere) between the time of the Parthenon frieze and that of the balustrade of Athena Nike. Plate V, (e), (f) and (g) illustrate its introduction. (e) is a detail of a slab of the frieze of the Parthenon. The sculptor, in order to produce a groove, has bored a series of holes with a simple drill and then broken away the thin walls which separated them.⁵ (g), from the balustrade, shows where the sculptor, wanting to make a groove, has cut it out with a continuous movement of a drill, held obliquely to the surface and forced along as it revolved. Very good. If we find in an alleged archaic sculpture the free and confident use of an instrument which all our other evidence shows was not invented until at least fifty years after the latest archaic period, what is the conclusion?

The conclusion is of some importance, for this is precisely what we do find in the group. Fig. 5, the long locks of the man; Figs. 6 and 7, those hands which this compeer of the greatest sculptors of that great age had no shame in giving to the world—all show unmistakable traces of the running drill. Most important of all, because most clear, is the hair of the girl, which I give on a large scale (Plate VI). Let us follow the course of one of the kind of grooves which can be seen in all undoubted archaic sculptures to have been made by the chisel, with the rare auxiliary use of single holes from

⁵ What remains is a channel with a series of partly abraded holes within it. These were made by the point of the drill, and were not quite smoothed away by the sculptor in finishing. The edges of the

drapery of the central figure of Plate (f) show the same process, but here some of the walls dividing the drill-holes still remain. The process is that normally employed in the frieze of the Parthenon.



FIG. 6.—A RIGHT HAND.



FIG. 7.—FRAGMENT OF A LEFT HAND.

the stationary drill. Take the second groove behind the back edge of the broad ribbon and above the narrow—where I have placed, in the photograph, a small cross—and follow it upwards. It starts with a single drill-hole, one of a series perhaps made in roughing out the work, which, in spite of the liberal bath of acid to which at some time the marble has been subjected, can be seen following the upper edge of the narrow ribbon and marking the ends of the grooves. From this drill-hole starts a groove of flattened S-shape which can only have been cut by the continuous motion of a running drill, as far as the first *horizontal* wave of the hair. Here, towards the end of the bore, by accumulation of pressure, the revolving point has cut a somewhat deeper hollow: phenomenon familiar to those who have sat in the dentist's chair. A moment's rest, and then on again out of the picture. There is not a single groove on the whole head, whether above or below the ribbon, which has not been worked in a similar way.

Until these simple phenomena are explained, all attempts at reconstructing the group and analysing its composition, all speculations on the school which produced it or the building which it ornamented, all eulogies of its maker or its merit, are mere waste of time.

BERNARD ASHMOLE.

SOME NOTES ON FIFTH-CENTURY HISTORY

THE appearance of the *Cambridge Ancient History* has revived interest in a number of problems not yet solved. Here are four of the fifth century, on which the authors of the *C.A.H.* take what is on the whole the prevalent view, and on which something still remains to be said.

I. THE PEACE OF CALLIAS

Mr. Walker (*C.A.H.* v. 469-471) argues that the embassy of Callias (*Hdt.* vii. 151-2) must have been sent about 460, for the simultaneous Argive embassy was asking for a renewal of an old friendship by Artaxerxes, and so had set out soon after the latter's accession. He forgets to add that Herodotus expresses doubts whether any such embassy was ever sent by Argos. He also says that the embassy 'must have been sent at a time when Argos was in danger of being attacked, obviously by Sparta,' and so before 451. Why? (We may note in passing that Mr. Walker's 'spokesman of the democratic party in Athens in 461' was brother-in-law to Cimon.) He then examines the terms of the peace-treaty as they have come down to us: 1. 'As Persia never resigned her claim to the tribute of the Greek cities, she cannot possibly have recognised their autonomy.' Why not? Did France resign her claim to Alsace and Lorraine in 1871? Autonomy was a much-used and elastic term. Persia could use it, meaning by it freedom for the cities from domination by Athens (they were to be free allies); Athens used it as the liberator of Greece. The autonomy of Aegina was conceded by Athens in the treaty of 445, and Sparta guaranteed that of all Greek cities in 386. 2. 'It is inconceivable that a term so vague as either of these (τρίτων ἡμερῶν ὁδός, ἱπποῦ δρόμος) could figure in a treaty.' Is it? The last sentence of Article 2 of the Convention 'respecting the Regulation of the Liquor Traffic' signed between the British and American Governments at Washington in 1924 is to the effect that 'The rights conferred by this Article shall not be exercised at a greater distance from the coast of the United States than can be traversed in one hour by the suspected vessel.' And is '500 stadia' in reality any less vague a term in a land of few roads and unsurveyed? And if the use of the term is inconceivable, why did fourth-century fabricators use it? 3. The discrepancy as to one of the terms is no argument: for it is as difficult or as easy to explain whether the inscription was genuine or false—easier, if anything, if it was genuine; for it is a little more probable that Isocrates (who ever looked to him for accuracy?) would exaggerate the terms of an old treaty than of one recently (shall I say?) published. 4. Finally, *Thuc.* viii. 56. 4 does most certainly suggest the existence of some such treaty:

Persia is to be an ally, not an enemy, of Athens, if she might bring her fleet to the Aegean—ναῦς ἡξίου ('Αλκιβιάδης) ἔαν βασιλέα ποιείσθαι καὶ παραπλεῖν τὴν ἑαυτοῦ γῆν ὅπῃ ἂν καὶ ὅσαις ἂν βούληται: is that natural language if there had been nothing but an informal agreement to end aggression on both sides? All that Mr. Walker leaves us with is, in 461 an embassy but no result (for war began again in 459), and in 449 a result, the cessation of hostilities, but no embassy. This is how we correct the faulty historical methods of the ancients.

II. THE CITIZENSHIP LAW OF 451-0 AND THE ΔΙΚΑΝΗΦΙΣΙΣ OF 445-4

This is discussed by three different scholars, Mr. Tod, Mr. Walker and Prof. Adcock (pp. 5, 102-3, 167-8); they agree in connecting the passing of the law and the scrutiny closely, and in regarding the former as motivated only by the selfishness of a *demos* determined to keep its privileges to itself. Indeed Prof. Adcock says that the scrutiny was nothing but the retrospective enforcement of the law, and Mr. Walker says that, as a *preliminary* to the distribution of Psammetichus' corn, the list of citizens was revised. This seems to me all wrong. The idea of kinship as the basis of membership of the state was fundamental throughout Greece, and in this respect the nationality of the mother was as important as that of the father; it was not confined to Athens or to democracies. As there was, in fact, so much intercourse between the different cities, and barriers to trade and change of domicile had broken down, there had been in practice, inevitably, some intermarriage (how much at Athens we do not know—certainly chiefly among the Few); but the law of 451 was an attempt to restore what was regarded as normal by the Many; it was in accordance with average sentiment. And that, next to this, the chief motive was a fear lest the population would continue increasing and eventually make the constitution unworkable, we need not doubt. The constitution *was* only workable within a certain limit of numbers, and it is Aristotle, no friend of the democracy, who says that this was the motive of the law.¹ (Mr. Walker says we must be on our guard against thinking of the measure as undemocratic 'in the ancient sense of the term. . . . To the Greeks democracy meant, not the overthrow of privilege, but merely the extension of its area.' Exactly; and this law did not extend, but narrowed the area, and was therefore undemocratic in the ancient sense of the word, as in the modern—or rather would have been, had not the feeling for kinship pulled in the other direction.) Professor Adcock sums up: 'This narrow policy was a grievous error. The limit of Athenian greatness was the limit of her devoted citizens, and this action is a great reproach on the state-

¹ We must, however, remember that the admission as citizens of the children of citizen men and foreign women would not as such increase the population, unless there were citizens who refused to marry at all because they could not marry foreigners. Only a corresponding admission of the children of citizen women and foreign men would do this. Indeed one may suppose that one of

the motives in 451 was a fear that citizens' daughters would not get married, as it almost certainly was in 403, when there were so many more women than men among the citizen population. It was the refusal of Athens (here again like every other Greek city) to naturalise the metics, even though settled for many generations, that more than anything else kept the numbers down.

craft of Pericles, a denial of Athens' past, and a menace to Athens' future.' That one of the chief causes (though not the only one) of Athens' failure to unite Greece was an insufficient man-power, and that this in turn was caused largely by her citizenship laws is true. But that should not make us forget that, had the numbers of her citizens risen rapidly to 60,000, 80,000, 100,000 (mainly concentrated in the towns), the whole constitution and manner of public life would have changed, as they did at Rome. Athens could not have remained true to her ἥθος; and we should recognise, not only that a determination to remain true to her past was a natural one, but that, however much she might have gained by a more generous decision, she would also have lost much, and the world would have lost with her. Impracticable, absurd her institutions may have been; but there is something precious (and certainly unique) in conditions that will produce an Aristophanes and a Demosthenes.

Secondly, this citizenship law was not made retrospective in 451, as the cases of Cimon and of Thucydides or Olorus show (and the analogy of 403 would suggest), and there is no reason for supposing any retrospective measure, nor any measure at all except a decree ordering a scrutiny in every deme, in 445. Owing to the very considerable increase of the foreign population (not all of it with metic rights) since 479, to the growth of the towns and the emigration thither of poor citizens as well as foreigners free and slave, and to the fact that a citizen did not change his deme with his domicile, a large number of persons, aided by the muddle caused by this rapid development, had got themselves or their children or other people's children fraudulently enrolled as citizens, many very likely after news had come that there was to be a gift of corn from Egypt; all claimed their share, and in consequence of the scandal a universal scrutiny was ordered. This is not to deny that selfishness was a powerful motive with many voters in 451, and there was doubtless much malice, back-biting, blackmail, lying and uncharitableness in 445, and much injustice done. Men's characters are various. But the object of the διακρήσις was to investigate charges of fraud.

III. THUCYDIDES, iv. 48. 5

Καὶ ἡ στάσις πολλὴ γενομένη ἐτελεύτησεν ἐς τοῦτο, ὅσα γε κατὰ τὸν πόλεμον τόνδε, κ.τ.λ.:

We may fairly assume (says Prof. Adcock, pp. 480-3) that the qualifications (ὅσα γε κατὰ τ. πόλ. τ.) was added after the end of the Archidamian war and before Thucydides had conceived of a single twenty-seven years' war, of which the Archidamian was only a part. For the *stasis* at Corcyra broke out again in 411-10 B.C., a fact which presumably caused the historian to insert the qualification. If that is so, then it was not till after this qualification was made, i.e. after 411-10 B.C., that Thucydides came to view the whole series of struggles as one.

Why could not the whole sentence have been written soon after 421, when he was writing up his notes, say about 418, when it was already clear to anyone

of sense (if it had not been in 421) that war might break out again at any moment, and the qualification inserted to guard against the assumption that internal peace in Corcyra was assured ('*stasis* may break out again at any moment')? Even if it were not added till after 410, it can only mean that Thucydides was still preserving a purely formal distinction between the Archidamian and the later periods. That he had not yet conceived of the series of struggles as one I find it impossible to believe. He could not yet conceive it as a *completed* whole, as we can, for it was not yet finished, and he did not know what the end would be; but that is a very different matter.

In general, in his note on the composition of Thucydides' history, especially on the speeches, Prof. Adcock is refreshingly sane; though he inclines to the view that the Athenian speech at Sparta in 432 may be late because it throws out the balance of the composition. This is to argue like Dionysius—that Thucydides ought to have suppressed the speech, because it is inartistic—it spoils the look of the thing. And I wish historians who believe that the Funeral Speech was composed after 404 as an *Epytaphios* on Athens would answer the questions, Did Pericles deliver the speech over the dead of 431, and, if so, what did he say, and what notes did Thucydides make at the time?

I also believe that Thucydides' explanation of the origin of the war is sufficient and true (that at least was what the war decided, that there was to be no one Greek state powerful enough to unite Greece); and that there is no reason to assign the composition of the digression, i. 89-117, and therefore, this conception of the true cause of the war, to a time subsequent to 407-6, the latest date recorded of Hellanicus' *Atthis*. What a touching faith we have in the unity of works of which only fragments remain. Why should we suppose that the last recorded event in a *Chronicle* is prior to the original publication of any section of it? The view that the digression (including the criticism of his predecessors) is an essay of his early years, designed especially to get events in their right order, and subsequently thrown into the preface of his great work, unfinished and never adapted to its new position (cf. Harrison, *Camb. Philol. Soc. Proc.* xcix-ciii, 1912, p. 9), is much more probable.

IV. DAMASITHYMUS

Mr. Munro (vol. iv. p. 312) repeats the error of Macan that Damasithymus, whose ship was sunk by Artemisia at Salamis, was her own vassal. For this there is neither evidence nor excuse. He was a Carian, king in Calynda. All Artemisia's subjects were Dorian Greeks, including the inhabitants of Calynda or Calymnus (Hdt. vii. 98-99).

A. W. GOMME.

A SURVEY OF GREEK ALCHEMY

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§ 1. *Introduction.*

In the Greek writings of the first millennium of the Christian era we find our earliest evidence of that remarkable body of doctrine known as Alchemy. Arising perhaps in the traditional knowledge of the Egyptian priesthood, it flourished as a living science and creed for seventeen centuries. The earliest alchemical works that have survived are all written in Greek, and the extant Greek alchemical writings run to more than eighty thousand words. The bulk of these documents is evidence of the attraction which the science possessed for the philosophers of the Byzantine age. Alchemy was then no mere by-way of thought, but one of the major departments of knowledge.

The alchemical writings have affinities with other contemporary works. It is, therefore, well to decide on the meaning we shall attach to the word *Alchemy* before discussing its methods and origin. In the forms *ἀλχημεία*, *ὀλχημεία*, etc. the word first appears *subsequent* to the date at which the most important Greek alchemical texts were composed. These texts themselves usually refer to their subject as 'The Work,' 'The divine and sacred Art,' 'The making of gold,' and but rarely use the much-discussed word *χημεία*, *χυμεία*, etc., which has since entered our vocabulary as *Chemistry*.

Alchemy and Chemistry were, of course, distinguished from each other only at a late date. The derivation of chemistry from alchemy should not lead us to assume that the alchemy of Greek times could correctly be called chemistry. Certain substances may have been investigated for specific purposes, but we know of no early investigation in that scientific spirit which is to be distinguished from practical crafts such as metallurgy or dyeing. Alchemy is distinguished from metallurgy, not by a scientific spirit, but rather by its specialisation on a particular metallurgical problem and its exaltation of that problem to a matter of more than material significance. The conception of rigidly defined chemical individuality could not be in existence in the early days of alchemy. On the old theory all matter was made up of mixtures in varying proportions of the four elements, air, fire, earth and water. The alteration of

the properties of a metal was thus not a task which presented itself as in conflict with any established theoretical principle. Yet although alchemy, looked at from the point of view of a practical craft, may be regarded as a department of metallurgy, it had from its first appearance a supernatural element associated with it.

The lack of interest in the general properties of matter is noteworthy. All the practical instructions or recipes deal with the production of gold, silver and purple, or in one or two instances precious stones. The texts make it clear that numerous chemical phenomena must have been discovered in the course of the alchemical processes, which include multifarious fusions, sublimations and distillations. Yet the alchemists found none of these phenomena interesting enough to mention. No one who had used sulphur, for example, could fail to remark the curious phenomena which attend its fusion and the subsequent heating of the liquid. Now while sulphur is mentioned hundreds of times there is no allusion to any of its characteristic properties except its action on metals. This is in such strong contrast to the spirit of the Greek science of classical times that we must conclude that the alchemists were not interested in natural phenomena other than those which might help them to attain their object. Nevertheless, we should err were we to regard them as mere gold-seekers, for the semi-religious and mystical tone, especially of the later works, consorts ill with the spirit of the seeker of riches.

This religious atmosphere is present in almost all the alchemical texts and serves to distinguish them from purely technical treatises. Certain of the earliest alchemical works were, probably, at one time wholly practical in content but even these seem to have been provided with a supernatural setting in order to make them more acceptable to a later public. The religious element in Greek alchemical works links them to Egypt rather than to Greece. The deeply religious nature of the Egyptian seems to make itself apparent here. We shall not find in alchemy any beginnings of a science, but rather an attempted interpretation of secrets of the past by men who believed that they might restore or rediscover lost or concealed knowledge, once possessed by the priests of Egypt, or by ancient philosophers. At no time does the alchemist employ a scientific procedure. He does not survey the theory and practice of his art and build up a method therefrom, nor does he ever base his practice on his theoretical beliefs concerning the nature of matter and its interactions. He is for ever concerned in finding out what the ancient authors meant. The reverence paid to the legendary figures of ancient science, such as Democritus, Ostanos and Hermes, and consequently to the authors who wrote in their names, paralysed research along new lines. Under the Arabs rose the second wave of alchemical progress, leading in a short time to chemical discoveries greater and more numerous than any made by the Greeks.

§ 2. *The Papyri.*

We derive our knowledge of Greek alchemy from a large number of mediæval manuscripts and from a few papyri of earlier date.

Three papyri in Leyden are the most ancient known which treat of the subjects of alchemy or metallurgy. They are of about the third century A.D., and form part of a collection probably emanating from a tomb.¹ One contains magical incantations of a fairly early gnostic character. In the same papyrus is a list of 37 names of plants, minerals, etc., together with their mystical or sacred names. This synonymy is of interest in view of the alchemical practice of giving many names to the same substance. Two fragmentary metallurgical recipes occur also in this papyrus, affirming by their position the association of metallurgy with magic and gnostic mysticism. A second papyrus contains names of a few substances used in connexion with the writing of magical formulae.

The third alchemical papyrus at Leyden is more important for our purpose. It contains 101 recipes, all of a character bearing upon alchemy. Sixty-five of these are metallurgical. They are concerned chiefly with the making of gold and *asemas*. Fifteen are concerned with writing in letters of gold and silver. Eleven are recipes for dyeing stuffs. Ten are extracts from the *Materia Medica* of Dioscorides concerning minerals used in the recipes. This is, therefore, one of the earliest portions of a text of Dioscorides that we possess.² Some of the metallurgical recipes are of great interest as resembling those given by such authors as the alchemical writer 'Democritus.'

The Leyden papyri have been dated to the third century by Reuvens and Leemans, on the evidence afforded by the character of the script, and by their format. The authors cited in them are 'Democritus,' Phimenas, Anaxilaus and 'Aphriklance.' The dating of 'Democritus' is uncertain, but probably he is to be placed in the first century A.D. (see p. 114). Phimenas may perhaps be identified with Pammenes, but even so he affords little help in dating. The age of Anaxilaus is also doubtful. Aphriklance, however, is very probably Julius Sextus Africanus, who lived at the beginning of the third century A.D. This would be in agreement with the dating arrived at from the other sources mentioned.

Of somewhat less alchemical interest than the Leyden papyrus, though important on other grounds, is the papyrus of Stockholm, of about the same date and character as those at Leyden. It contains 152 recipes, 9 concerned with metals, 73 with precious stones and 70 with dyeing. Its date is probably the same as that of the Leyden papyri.

§ 3. *The Manuscripts.*

There is a great body of Greek alchemical manuscripts, chiefly of the sixteenth century or later. A few early manuscripts are known. The later, with the exception of those containing the few texts referred to in § 4(d), are all more or less accurate copies of these. The similarity of earlier and later manuscripts shows that Byzantine alchemy was quite static.

The early manuscripts of primary importance are three in number. A

¹ This collection was acquired by the Chevalier d'Anastasi, Swedish vice-consul in Egypt at the beginning of the nineteenth century, and was purchased by the Dutch

Government in 1828.

² See C. Singer, 'Herbal in Antiquity,' *J.H.S.*, xlvii. p. 22.

fine MS. at Venice (Marcianus 299) is of the tenth or eleventh century. A manuscript at Paris which we shall call *the first Paris MS.* (Paris. gr. 2325) is of the thirteenth century. Another Paris MS. which we shall call *the second Paris MS.* is of the fifteenth century (Paris. gr. 2327). It is a fuller copy of the



FIG. 1.—THE SERPENT 'OUROBOROS' WAS A SYMBOL DENOTING AT ONCE THE UNITY OF MATTER, AND THE 'CIRCULATORY' TYPE OF ALCHEMICAL PROCESS PRACTISED IN CERTAIN TYPES OF ALCHEMICAL APPARATUS. (MS. PARIS, GR. 2327, F. 196.)

first Paris MS. These three MSS. contain almost all the surviving alchemical writings which date from the first eight or nine centuries of the Christian era.

Of a different character are several late Greek MSS., the texts of which cannot have been written earlier than A.D. 1000, nor perhaps later than A.D. 1300. The methods and spirit of these are allied to mediaeval Western rather than to early Greek alchemy. They are therefore more conveniently

studied in connexion with the alchemy of the Middle Ages. Among these are a recently discovered Codex at Holkham Hall (Holkhamicus 290) and a still more recently discovered and as yet unpublished Codex at the Vatican (Vat. gr. 1134).

The Greek alchemical MSS. of the British Isles, France, Italy, Madrid and Athens have been adequately described and catalogued. Those of Central Europe have not yet been systematically treated. In the libraries of Leyden, Vienna, Munich, Wolfenbüttel, Breslau and Altenburg there are Greek alchemical manuscripts, which, however, do not seem to contain anything of importance not found in the three primary MSS. at Venice and Paris.

Of the secondary MSS. a useful study has been made by Kopp. The contents of the primary MSS. have been transcribed by Berthelot, Ideler, Ruelle and others. The edition of Berthelot contains, in great confusion, the major part of the known Greek alchemical texts. His transcription is based, for the most part, on the second Paris MS., collated with several secondary MSS. Berthelot has translated most of the texts, but his interpretation is necessarily strongly coloured by his views of the nature of the alchemical processes, and these views are not accepted by all students.

§ 4. *The Texts.*

The older Greek alchemical texts are the work of some forty or more authors whose period of activity is datable within fairly wide limits. These authors fall naturally into five groups, of which we shall here be concerned only with the first three. Many of the names given are mere pseudonyms.

- (a) *The earliest alchemical authors*, who wrote at dates in no case certainly known, but not later than the second half of the third century of the Christian era nor earlier than the first century. These include : *

Democritus	Eugenius	Pammenes
Isis	Comarius	Chymes
Iamblichus	Cleopatra	Pibechius
Moses	Maria	Petasis
Ostanes	Hermes	
"Chruth"	Agathodaemon	

- (b) *The alchemical authors of the third and fourth centuries :*

Africanus	Heliodorus	Pelagius
Zosimus	Synesius	Olympiodorus

- (c) *The later commentators.* These flourished between the sixth and thirteenth centuries. They include :

Philosophus Christianus	Pappus	Pselius
Stephanus	Theophrastus	Cosmas
Herselius	Hierotheus	Nicephorus Blemmydes
Justinianus	Archelaus	
Philosophus Anonymus	Salmannas	

* No attempt is here made to distinguish between genuine authors and those to whom texts have been falsely attributed.

- (d) The recently catalogued MSS. of Italy, Spain and Athens have revealed a number of late texts, the translators or authors of which may be dated as later than A.D. 1000. Their works, as yet unpublished, appear to belong to Western alchemy rather than to the Alexandrian and Byzantine traditions. Nevertheless, no evidence has yet been adduced that they exhibit Arabian influence except through their Western originals. These late authors include:

Ῥίναλδων Τελανοβέβιλα (βηλανόβα) (Arnaldus de Villanova)
 Ἀμπέρτος θεοκτόνικος (Albertus Tentonicus)
 Cômes de Santa Flore
 Lucius

- (e) *A very late list*, contained in a MS. at Athens copied in 1804, refers to Dioscorides, Theodorus Magistrianna and Jacobus Cabidarius as alchemists. The date of this manuscript is a witness to the remarkable persistence of the alchemical tradition in the Near East.

(a) *The earliest alchemical authors* are sharply divided into two schools, to which we add an indefinite appendage or third school:

- (i) *The followers of Democritus*.—These carry out their alchemical work by superficial colourings of metals and by the preparation of alloys by fusion. The Democritan school includes Isis, Iamblichus, Moses, Ostanes and Engenius.
- (ii) *The school typified by Maria and Comarius*.—These employ complex apparatus for distillation and sublimation. The Marian school includes also Hermes and Cleopatra. Agathodæmon, of whose works fragments only survive, probably also belongs here. To this school Western alchemy and, indirectly, modern chemistry owe some debt. This is acknowledged in the common modern laboratory device known as the *bain-marie*, and in the design of our distillation apparatus. The title *balneum mariae* seems to occur first in the works of Arnald of Villanova (fourteenth century).
- (iii) *Fragments*. There remain a number of authors of unquestioned early date whose works are lost or survive only in too fragmentary a state for us to determine their affinities. To this group must be relegated Pammenes, Chymes, Pibechios and Petasius.

(i) *The followers of Democritus.*

DEMOCRITUS (PSEUDO-DEMOCRITUS).—The mention of this author in one of the Leyden Papyri places him before c. A.D. 250, the *terminus ad quem* of that document. Later commentators refer to him as a remote and legendary figure. This is doubtless the result of the pseudonym of the writer of the existing treatises. The reference of Pliny to the *Chiroscinda* of Democritus shows that a collection of recipes for some kind of marvellous manipulations, attributed to that philosopher but doubtless the work of a much later author, was in existence in the first century A.D.

The term *Χημικάματα* in the sense of 'artificial substances' is applicable to the *Physica*

et Mystica, the most important work of the alchemist Democritus. It is in this sense that the adjective χημικητος is used by Aristotle (*Meteor.*, 2. 1. 6).

It is, then, possible that this Democritan work of Pliny is identical with the alchemical *Physica et Mystica* Democriti which we possess or with the older portions of it. The *Physica et Mystica* contains no Christian references. Its magical portion, which is almost certainly later than the practical portion, is not flavoured with the complex Gnostic beliefs which abound in works of the second and third centuries. Moreover, the comparative simplicity of the methods of the *Physica et Mystica* suggest that it is considerably older than those authors that mention it. It is, then, probable that this work at least of Democritus is of the first century of the Christian era.

Democritus was regarded as a father of alchemy by his successors. He appears as the earliest exponent of the school of alchemical thought which has given its teachings to the world in the form of short and definite recipes. The obscurity of these is due rather to our ignorance of the nature of the constituents than to deliberate concealment or to a mystical or symbolic terminology. The methods advocated by Democritus and his followers include the preparation of alloys and the superficial coloration of metals; while the processes of distillation and the prolonged action of the vapours of arsenic, mercury and sulphur, much practised by the school of alchemical thought, of which the earliest exponents were Mary, Cleopatra and Cleopatra, were either unknown to them or considered valueless for preparing gold.

The works attributed to Democritus are :

- (α) Φυσικά και μυστικά. (B. II. p. 41. 1-49. 22.)*
- (β) Δημοκρίτου βιβλός ε' προσφωνηθείσα Λευκίππῳ. (B. II. pp. 53-56.)

A Syriac version of the *Physica et Mystica* exists and was probably a means of transmitting the knowledge of Greek alchemical processes to the Moslem world.

ISIS.—The character of the mythology of the interesting text bearing the name of Isis assigns it to the earlier period of Gnostic beliefs. The text exists in two forms differing in the mythological part but identical in their alchemical content. The alchemical matter is consistent with a date near to Democritus. This text also probably dates from the first century. The title of the work is :

- Ἰσις προφήτις τῷ υἱῷ αὐτῆς. (B. II. pp. 28-33.)

IAMBLICHIUS.—That this author is not identical with the well-known writer Iamblichus may be inferred from a consideration of his style and thought. The alchemical matter is somewhat more advanced in type than that of Democritus, the influence of whose work is noticeable. An attribution to the second or third century seems reasonable.

- (α) Ἰαμβλίου καταβαφή. (B. II. 285.)
- (β) Ἰαμβλίου ποίησις. (B. II. 286.)
- (γ) Χρυσοῦ ποίησις. (B. II. 287.)
- (δ) Χρυσοῦ διπλώσις. (B. II. 287.)

MOSES.—The opening passage of the considerable work (β) attributed to this author is a somewhat altered version of Exodus xxxi. 2-5. This suggests an attribution to the Hebrew prophet, though it is to be remembered that Moses was a personal name affected by the Byzantines. The alchemical matter is similar to that contained in the preceding texts, and the works were probably written at some period of the first or second centuries.

- (α) Μωσῶς διπλώσις. (B. II. p. 38. 13-29. 4.)
- (β) Εὐποία καὶ εὐτυχία τοῦ κτισμένου καὶ ἐπιτυχία καρπῶν καὶ μακροχρονία βίου. (B. IV. p. 300-315.)

OSTANES.—The name was probably suggested by that of the Persian under whom Democritus of Abdera is said by Diogenes Laertius and others to have studied. An Ostanes

* B. here and later M. Bartholot : *Collection des anciens alchimistes grecs* (Paris, 1888).

is mentioned by Zosimus as an author of some antiquity, but there is no proof that he had the author of this treatise in mind. The character of the work is such that it may be of the first two centuries of the Christian era.

Ῥοσάνου φιλοσόφου πρὸς Πετασίον περὶ τῆς ἱερᾶς ταύτης καὶ θείας τέχνης.
(B. II. 261.)

EUGENIUS.—The name is attached to a recipe of the Democritan type.

Εὐγενίου δειπλώσις. (B. II. 39.)

(ii) *The School typified by Maria and Comarius.*

MARIA, also called Mary the Jewess, must be one of the earliest alchemical authors. In the third century she was known to Zosimus, who identified her with Mary, sister of Moses. The works in her name can hardly be later than the first century A.D. Unfortunately they survive only in quotations. Her Jewish origin is confirmed by the quotation (B. II. 103)

Μὴ θέλει ψάλλειν χεῖροισιν οὐκ εἰ γένους Ἀβραμαιοῖον . . .

Her works are freely quoted by Zosimus and other authors. She appears from these to have been quite the most remarkable of the ancient alchemists. She appears in these quotations as the originator of the major part of the processes used by the Greek alchemists. The elaborate 'kerotakis' apparatus (p. 132 ff.), the hot-salt bath, the dung-bed and the water-bath (*baïn-marie*) are all apparently her inventions or discoveries, while it appears likely that she perfected the apparatus for distillation of liquids (p. 136) in a form so efficient as to have suffered little alteration in two millennia. Her practical character distinguishes her very notably from all other alchemists. She describes apparatus in detail, even to the method of constructing the copper tubes required from sheet metal. She appears to have used almost every type of alchemical method, but perhaps to have paid most attention to the use of alloys of copper and lead. The latter metal she refers to as 'our lead' as distinguished from 'common lead,' and it may well be antimony or some metallic sulphide to which she refers. Democritus and Maria must hold the first place as practical alchemists.

The work of the other alchemists is in all probability merely the performance of variations of the processes invented by these authors.

COMARIUS is perhaps the earliest of all our authors. The mythical and symbolic matter, of which his fragmentary treatise is largely composed, is, when freed from later additions, fully consonant with a first-century Egyptian origin.*

Κομαρίου φιλοσόφου ἀρχιερέως διδάσκοντος
τὴν Κλεοπάτραν τὴν θεῖαν καὶ ἱερὰν τέχνην
τοῦ λίθου τῆς φιλοσοφίας. (B. II. 289.)

CLEOPATRA.—Three treatises survive. The *Chrysopoia* consists only of a page of symbols and drawings reproduced on p. 117. The title of the treatise mentioned under Comarius, and also internal evidence of Cleopatra's treatise, indicate a first-century date. The symbols and drawings of figures are probably the earliest drawings that we have of chemical apparatus. 'A dialogue of Cleopatra and the philosophers' exists in a mutilated form; it is probably of the same date as the above treatises, but cannot be attributed to Cleopatra.

- (α) Ἐκ τῶν Κλεοπάτρας περὶ μέτρων καὶ σταθρῶν. (Hultsch: *Metrologicon scriptorum reliquiae*. Lipsiae, 1864, I. 253.)
- (β) Κλεοπάτρης χρυσopoia. (Figures only, no text.) (B.I. 132.)
- (γ) Διάλογος φιλοσόφων καὶ Κλεοπάτρας. (B. II. 290. Included under the same title with the dialogue of Comarius and Cleopatra.)

HERMES.—The name is attached to three fragments. These are unrelated in style

* von Hammer Jensen: *Die älteste Alchemie*. Copenhagen, 1921.

and matter to the mystical works bearing the name of Hermes Trismegistus, but are conceivably derived from some of the priestly works attributed to Hermes-Thoth and mentioned by Clement of Alexandria. Many other fragments are scattered through the works of Zosimus and later commentators.

- (α) Ἑρμοῦ τριμεγίστου ὄργανον. (B. II. p. 23, 8-17.)
 (β) Αἰνίγμα (Ἐάν μή - ἔσται). (B. II. 115, 10.)
 (γ) Αἰνίγμα τοῦ φιλοσοφικοῦ λίθου. (B. II. 267, 16-268, 2.)

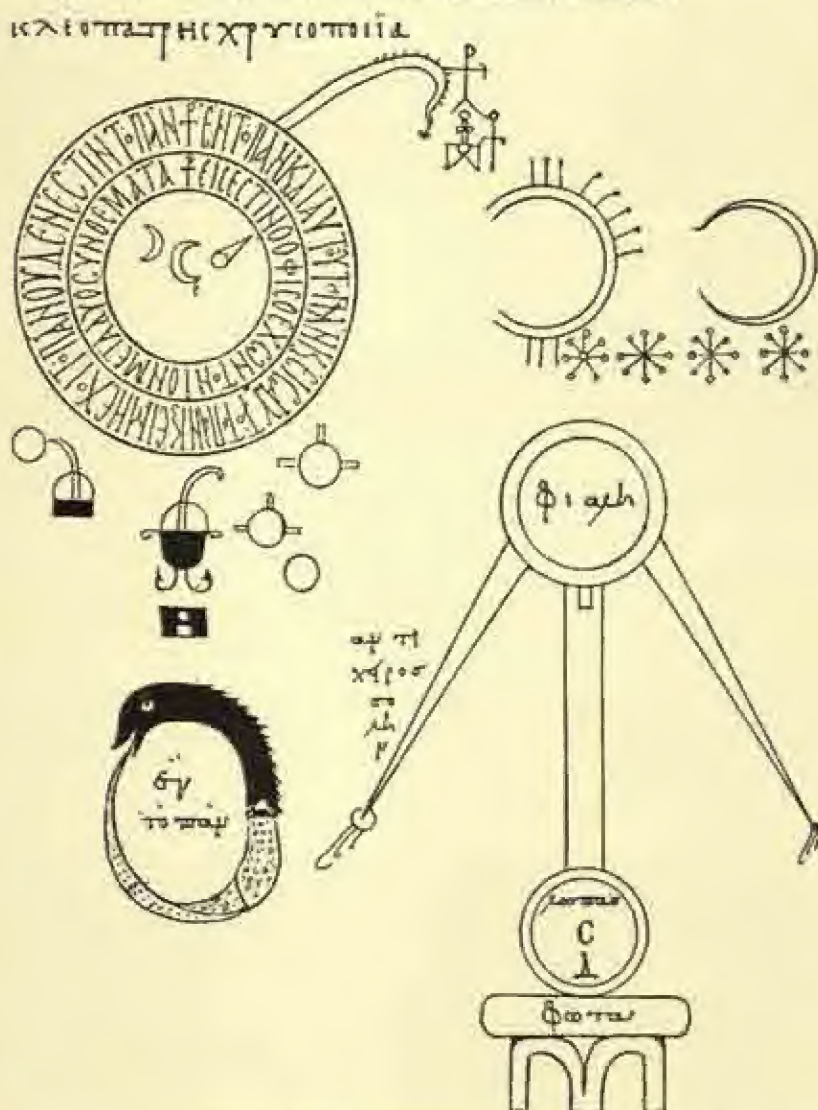


FIG. 2.—THE CHRYSOPHEA OF CLEOPATRA.

The emblem in the left hand top corner encloses the aphorisms: Ἐκ τοῦ πάντων καὶ δι' αὐτοῦ τὸ πᾶν καὶ δι' αὐτοῦ τὸ πᾶν καὶ ἐκ τοῦ πάντων καὶ δι' αὐτοῦ τὸ πᾶν; and: Ἐκ τοῦ πᾶν καὶ δι' αὐτοῦ τὸ πᾶν καὶ ἐκ τοῦ πάντων καὶ δι' αὐτοῦ τὸ πᾶν. On the right of this emblem are symbols of which the meaning is doubtful. Below these is a still with two condensing arms (cf. Fig. 5) and on the left the serpent Ouroboros with the inscription: ἐκ τοῦ πάντων. Above the serpent are sketches illustrating a piece of apparatus of the *herophilæ* type, used for the fixation of metals.

ΑΓΑΘΟΔΑΙΜΟΝ.—A deity of that name was worshipped in Greece and Egypt in connexion with wine, and later figured in Gnostic hymns and inscriptions (cp. Isis and Hermes). There was a geographer Agathodæmon, but there is no reason to suppose a connexion with these texts. Olympiodorus (early fifth century) doubted whether Agathodæmon were 'an ancient philosopher in Egypt or a mystic angel, or a good genius (ἀγαθὸν δαιμόνα) of the Egyptians.'

Internal evidence suggests the first two centuries of the Christian era as a date for his texts:

- (α) An aphorism without title (Μετὰ τὴν - ξάνθωσις). (B. II, 115, 7.)
- (β) 'Αγαθοδαίμων εἰς τὸν χρόνον: Ὁρῶνς συναγωγή καὶ ὑπόμνημα. (B. II, 268, 3-271, 25.)

(iii) *Fragments.*

CHYCOTI.—A MS. (Paris gr. 2314) contains an unedited text entitled Ἐβραϊκὴ ἐκ τῆς χυσιτιστῆς βίβλου τῆς χρονοσκοπίας (sic) τῆς χρόνῃ καὶ τοῦ ὁρῶνς (sic) καὶ κλισιάτρος. The text is late (probably ninth century), and the name χρόνῃ may be a copyist's error. The name is placed here on account of its association with Cleopatra.

JOHANNES.—'Philosophus Anonymus' (p. 122) refers to 'Johannes the arch-priest of the "Tuthia" in Evagria . . .' as the oldest of the alchemical writers with the sole exception of Hermes. Another list which places Johannes earlier than Democritus dates from the seventh century.

The character of the work attributed to Johannes makes it certain that its author was not earlier than the fifth century. It may be that this work is falsely attributed to a real Johannes of the first century. The application of the title itself to this work seems to be an error on the part of Berthelot as editor.

The work attributed to him is entitled:

- Ἰωάννου Ἀρχιεπισκοπῆς τοῦ ἐν Ἐβεργίᾳ περὶ τῆς θείας τέχνης. (B. II, 263 and 130, 4.)

PARMENES may be the Egyptian Phamenus of Saïs to whom a recipe in the Leyden Papyrus X is attributed. He is mentioned by Olympiodorus (fifth century). None of his works survives.

CHYMES is mentioned as an ancient author by Zosimus, and a few quotations from his works are found in the treatise of Olympiodorus, and in certain works of Zosimus. He is associated by the latter with Mary the Jewess and may well date from the same early period.

PRAXENES.—The name has a mythological significance, being equivalent to Apollo Beekis (Pliny, XXX. 2). He is mentioned, together with Mary, Chymes, Democritus, Agathodæmon, in a treatise attributed to Zosimus. He might therefore be placed in the first or second century. The attribution of this particular treatise to Zosimus is, however, doubtful.

PETASIS or PETASIOS.—The name Petos (Egyptian = Gift of Isis; in Greek, Isidoros) is perhaps that of a real person. The treatise of Olympiodorus (c. 400) is addressed 'to Petasius, king of Armenia.' The latter title has, however, probably been added at a later period. This treatise, moreover, mentions 'Petasius the philosopher' in such a way as to make it unlikely that he is the person to whom the treatise is addressed. A Petesia is mentioned by Zosimus as a contemporary of Hermes. The quotations from his works show him to have been of the school of Cymaros and Mary.

(b) *Alchemical authors of the third and fourth century.*

The work of Zosimus, like that of a few authors to be classed with him, is distinguished from that of the earliest authors by its character as commentary. Zosimus is probably

a practical author as well as a commentator, but very little of his work, if any, is truly original. The other commentators of the fourth and fifth centuries are even less practical in type, but are perhaps less barren than those of the sixth century and later.

AFRICANUS.—The first alchemical author who can be dated with any degree of accuracy is Africanus. He is almost certainly identical with Julius Sextus Africanus who died in A.D. 232. Scanty remains of his alchemical writings survive in quotations in the works of Zosimus and Olympiodorus. They are not unlike those of Zosimus.

ZOSIMUS.—Snidas mentions that Zosimus and Thrasebeia wrote a work *Chērobsēia* (cp. Pliny on Democritus), a Chemical Encyclopaedia in 28 books. Of this certain existing works of Zosimus are fragments. The Syriac version of Zosimus seems to preserve a large portion of this work.

This most important of the Greek alchemists certainly belongs to the third century. He cites Democritus, and most of the early authors, and also Africanus, who died in A.D. 232. He is himself cited by Olympiodorus (beginning of fifth century). He mentions the Serapeum (destroyed A.D. 390) as still in being. His allegorical writings are consistent with the third century. A date of about 300 A.D. is probable. He is not identical with Zosimus the historian.

Zosimus produced several works on alchemy and also a collection of some of the alchemical works extant in his time. A part of this collection survives. Zosimus is heir to the ideas of Mary and Cleopatra. He had some tincture of the experimental spirit, and appears to have added something of his own to the tradition he had received. His remarkable 'visions' do not readily receive a physical interpretation, and it is possible that these and some of the work of his followers are mystically symbolic and not primarily practical in meaning.

The following are attributed to him :

- (α) Ζωσίμου τοῦ θεῖου περὶ ἀρετῆς (πρῶξις α'), (B. II. 107.)
- (β) Ζώσιμος λέγει περὶ τῆς ἀσβέστου. (B. II. 113.)
Ζώσιμος πρῶξις β'. (B. II. 115.)
- (γ) Ποίημα τοῦ αὐτοῦ Ζωσίμου πρῶξις γ'. (B. II. 117.)
- (δ) Ζωσίμου τοῦ θεῖου περὶ ἀρετῆς καὶ ἐρημείας. (B. II. 118.)
- (ε) Περὶ τῆς ἐσταμίας ὕδατος θείου. (B. II. 138.)
- (ζ) Περὶ τοῦ αὐτοῦ θείου ὕδατος. (B. II. 141.)
- (η) Περὶ τοῦ θείου ὕδατος (in some MSS.). Ζωσίμου τοῦ Πανοπολίτου γνήσια ὑπομνήματα περὶ τοῦ θείου ὕδατος. (B. II. 143.)
- (θ) Παραινώσεις συστατικαὶ τῶν ἐγχειρούντων τὴν τέχνην. (B. II. 144.)
- (ι) Ζωσίμου τοῦ Πανοπολίτου γνήσια γραφὴ περὶ τῆς ἰερᾶς καὶ θείας τέχνης, τῆς τοῦ χρυσοῦ καὶ ἀργυροῦ ποιήσεως κατ' ἐπιτομὴν κεφαλαιώδης. (B. II. 145.)
- (κ) Βιβλος ἀληθῆς Σοφῆ Αἰγυπτίου καὶ θείου Ἑβραίου κυρίου τῶν δυναμίσεων Σαβαώθ. Ζωσίμου Θεβαίου μυστικὴ βιβλος. (B. II. 211 and 213.)
- (λ) Ζωσίμου πρὸς Θεόδωρον κεφάλαια. (B. II. 215.)
- (μ) No title. Inc. :—καὶ ἐπὶ τοὺς χρησίμους λόγους . . . (B. II. 219, 1.)
- (ν) Ὑδροργύρου ποίησις. (B. II. 220.)
- (ξ) Ζωσίμου περὶ ὀργάνων καὶ καμίνων. (B. II. 224.)
- (ο) Τοῦ αὐτοῦ Ζωσίμου περὶ ὀργάνων καὶ καμίνων γνήσια ὑπομνήματα περὶ τοῦ ὡ στοχείου. (B. II. 228.)
- (π) Περὶ τοῦ τριβίου καὶ τοῦ σωλῆνος. (B. II. 236.)
- (ρ) Τὸ πρῶτον βιβλίον τῆς πλεονείας ἀποχῆς Ζωσίμου Θεβαίου . . . (B. II. 239.)
- (ς) Ἑρημεία περὶ πάντων ἀπλῶς καὶ περὶ τῶν φῶτων. (B. II. 247.)
- (τ) No title. Inc. :—δύναμις, μετὰ δὲ τὴν ἐργασίαν . . . (B. II. 248, 11.)
- (υ) Περὶ λευκώσεως. (B. II. 241.)
- (φ) Ἑρημεία περὶ τῶν φῶτων. (B. II. 249.)
- (χ) Περὶ αἰθέρων. (B. II. 250, 13.)

The following works may belong to the remains of the *Encyclopaedia* of Zosimus and Theophrastus :

- (α) Περὶ τῶν ὑποστάτων καὶ τὰ δ' σωμάτων κατὰ τὸν Δημόκριτον τὸν εἰπόντα. (B. II. 148.)
- (β) Περὶ διαφορᾶς χαλκοῦ κακαιμένου. (B. II. 153.)
- (γ) Περὶ τοῦ ὅτι πάντων τῶν ὑγρῶν τὸ θεῖον ὕδωρ καλοῦσιν· καὶ τοῦτο συνθετὸν ἐστὶν καὶ οὐχ ἀπλοῦν. (B. II. 154.)
- (δ) Περὶ τοῦ ἐν παντὶ καιρῷ ἀρκτεῖν τὸ ἔργον. (B. II. 156.)
- (ε) Περὶ τῆς κατὰ πλάτος ἐκδόσεως τὸ ἔργον. (B. II. 159.)
- (ζ) Περὶ τοῦ τί ἐστὶν κατὰ τὴν τέχνην, οὐσία καὶ ἀνούσια. (B. II. 167.)
- (η) Περὶ τοῦ ὅτι πάντα περὶ μίας βαφῆς ἡ τέχνη λελάληκεν. (B. II. 169.)
- (θ) Περὶ τοῦ τροφῆν εἶναι τὰ δ' σώματα τῶν βαφῶν, εἰσὶν. (B. II. 170.)
- (ι) Περὶ τοῦ χρηστέου στυπτηριᾶ στρογγυλῇ ἀντίλογος. (B. II. 171.)
- (κ) Περὶ θεῶν. (B. II. 174, 11.)
- (λ) Περὶ σταθμῶν. (B. II. 177.)
- (μ) Περὶ καύσεως σωμάτων. (B. II. 179.)
- (ν) Περὶ σταθμοῦ ξανθώσεως. (B. II. 181.)
- (ξ) Περὶ θεοῦ θεϊκοῦ ὕδατος. (B. II. 184.)
- (ο) Περὶ σκευασίας* ὠχροῦ. (B. II. 186.)
- (π) Περὶ οἰκονομίας τοῦ τῆς μαγνησίας σώματος. (B. II. 188.)
- (ρ) Περὶ σώματος μαγνησίας καὶ οἰκονομίας (αὐτοῦ). (B. II. 191.)
- (ς) Περὶ τοῦ λιθοῦ τῆς φιλοσοφίας. (B. II. 198.)
- (τ) Περὶ ἀφαρμῶν συνθέσεως. (B. II. 204.)
- (υ) Περὶ ξηρίου. (B. II. 205.)
- (φ) Περὶ ἰοῦ. (B. II. 205.)
- (χ) Περὶ αἰτίων. (B. II. 206.)
- (ψ) Without title. Inc.:—Υδραργύρου πῦρ πυρὶ κρατοῦντες . . . (B. II. 206, 8.)
- (ω) Without title. Inc.:—Οὗτος ὁ χαλκάνθρωπος ὃν ὀρεῖς . . . (B. II. 207, 1.)
- (αα) Καθμιάς πλύσις. (B. II. 207.)
- (ββ) Περὶ βαφῆς. (B. II. 207.)
- (γγ) Περὶ ξανθώσεως. (B. II. 208.)
- (δδ) Τὸ ἄριον ὕδωρ. (B. II. 209.)
- (εε) Περὶ λευκώσεως. (B. II. 211.)

HELIODORUS.—His work is addressed to Theodosius, presumably Theodosius I (379-395). It is an alchemical poem and bears no evidence of being the work of a practising alchemist.

Title: 'Ἡλιοδώρου φιλοσόφου πρὸς Θεοδοσίον τὸν μέγαν βασιλέα περὶ τῆς τῶν φιλοσόφων μυστικῆς τέχνης διὰ στίχων λήψεων. (Goldschmidt: *Heliodori carmina quattuor*. 'Religionsgeschichtliche Versuche und Vorarbeiten,' XIX. 2. Giessen, 1923.)

SYKESTES is not the famous bishop of that name, since he writes prior to the destruction of the temple of Serapis at Alexandria (A.D. 390). His one work is:

Συνεσιῶν φιλοσόφου πρὸς Δίονσκορον εἰς τὴν βίβλον Δημοκρίτου, ὡς ἐν σχολίοις. (B. II. 56.)

PELAGIUS.—This author mentions Zosimus (c. A.D. 300) and is mentioned by Olympiodorus (c. A.D. 425). He is thus about A.D. 370. He wrote:

Πελαγίου φιλοσόφου περὶ τῆς φιλίας ταύτης καὶ ἱερᾶς τέχνης. (B. II. 253.)

OLYMPIODORUS wrote in A.D. 425 a history of his times. Thus his lengthy alchemical work may perhaps be c. 400-425.

* Or σημασία.

᾽Ολυμποςδώρου τοῦ φιλοσόφου Ἀλεξανδρέως εἰς τὸ κατ' ἐνέργειαν Ζωσίμου δσα ἀπὸ Ἑρμού καὶ τῶν φιλοσόφων ἦσαν εἰρημίνα. (B. II. 69.)

(c) *The Commentators.*

The remaining writers on alchemy are merely commentators, and few, if any, exhibit anything original. Disputes as to the meaning of the phrases of the ancient authors occupy much of their space. The development of elaborate analogies such as that between alchemy and music also interests them. Rhapsodical passages acclaiming the marvellous transformations brought about by the art appear, while the alchemical content remains completely static. Only when Western or Arabic alchemy came to the Greek world did a new type of alchemical work appear. Up to the tenth century the alchemical works written in Greek had made no advance on those of Zosimus. The knowledge of work which was done by the Arabs in the ninth and tenth centuries did not reach the Byzantine Greeks until a date entirely beyond our period.

The earliest commentators are sometimes interesting, but the later are a wilderness of futile subtlety.

PHILOSOPHUS CHRISTIANUS.—This name is attached to a very considerable treatise. The 'Sergius' to whom it is dedicated may be Sergius Resalensis, who lived in Alexandria in the early sixth century. This date is compatible with the general character of his work, which is undoubtedly a compilation of which probably only the first item is original. In certain MSS. works are attributed to this philosopher which are elsewhere ascribed to Zosimus. It seems likely that Philosophus Christianus incorporated the compilation of Zosimus into his own work.

The following works, with the name of Christianus attached, are elsewhere attributed to no other author:

- (α) Τοῦ Χριστιανοῦ περὶ εὐσταθείας τοῦ χρυσοῦ. (B. II. 395.)
- (β) Τοῦ αὐτοῦ Χριστιανοῦ περὶ τοῦ θείου ὕδατος. (B. II. 399.)
- (γ) Τίς ἡ τῶν ἀρχαίων διαφωνία. (B. II. 400.)
- (δ) Τίς ἡ καθόλου τοῦ ὕδατος οἰκονομία. (B. II. 401.)
- (ε) Ἡ τοῦ μυθικοῦ ὕδατοςποίησις. (B. II. 402.)
- (ζ) Ἀντίθεσις λέγουσα ὅτι τὸ θεῖον ὕδωρ ἐν ἐστὶ τῷ εἶδει καὶ ἡ λύσις αὐτῆς. (B. II. 403.)
- (η) Ἄλλη ἀπορία. Τὸ ἐν ἀβύσσῳ ὕδωρ ἐν τῷ ἀριθμῷ δεκνόντων ἐβόλυσσα ἡ τούτου ἐπιλύσις. (B. II. 407.)
- (θ) Τοῦ χριστιανοῦ σύνοψις. τίς ἡ αἰτία τῆς προκειμένης συγγραφῆς. (B. II. 409.)
- (ι) Ὅτι τετραχῶς τῆς ὅλης διακρουμένης, διάφοροι ἀπογίνονται τῶν ποιήσεων αἱ τάξεις. (B. II. 409.)
- (κ) Πόσαι εἰσὶν αἱ κατ' εἶδος καὶ γένος Διαφοραὶ τῶν ποιήσεων. (B. II. 410.)
- (λ) Πῶς δεῖ νοεῖν αὐτάς καὶ σχήμασι γεωμετρικοῖς. (B. II. 414.)
- (μ) Τίς ἡ ἐν ἀποκρύφοις τῶν παλαιῶν ἐκδιδαμένη τάξις. (B. II. 415.)

STEFANUS is dated by his connexion with Heraclius 610-641. His alchemical works are entitled:

- (α) Στεφάνου Ἀλεξανδρέως οἰκουμενικοῦ φιλοσόφου καὶ διδασκάλου τῆς μεγάλης καὶ λεγῆς ταύτης τέχνης περὶ χρυσοποιίας. πρῆξις πρώτη το ἐννάτη (9 texts). (Ideler, II. 199.) The letter Τοῦ αὐτοῦ Στεφάνου ἐπιστολή πρὸς Θεόδωρον is inserted in the first work after the second part (πρῆξις δευτέρα). (Ideler, II. 208.)

- (β) Στεφάνου τοῦ παμμεγίστου φιλοσόφου καὶ οἰκουμενικοῦ διδασκάλου πρὸς Ἡρόκλητον τὸν μέγαν βασιλέα διδασκαλία περὶ τῆς ἱερᾶς καὶ μεγάλης ἐπιστήμης τῆς χρυσοποιίας. (Ideler, II. 245.)

HERACLIUS and JUSTINIANUS.—The treatises attributed to Heraclius have disappeared.¹ A portion of a treatise attributed to Ἰουστινιάνου βασιλεὺς remains, but is undoubtedly the work of some other person.

PHILOSOPHUS ANONYMUS.—This author cites Stephanus, who is undoubtedly of the seventh century. He must be dated as of the seventh or eighth century.

- (α) Ἀνεπιγράφου φιλοσόφου περὶ θεοῦ ὁδοῦ τῆς λευκώσεως. (B. II. 421.)
 (β) Τοῦ αὐτοῦ Ἀνεπιγράφου φιλοσόφου κατὰ ἀκολουσίαν χρήσεως ἑρμῶν τὸ τῆς χρυσόποιας συνεπτυγμένον συν Θεῷ. (B. II. 424.)
 (γ) Ἀνεπιγράφου φιλοσόφου περὶ τῆς θείας καὶ ἱερᾶς τέχνης τῶν φιλοσόφων. (B. II. 433.)

PAPPIUS is probably of the seventh or eighth century, as is shown by his mention of Stephanus, and is represented by the fragment:

- Πάππου φιλοσόφου (ὄρκος). (B. II. 27.)

THEOPHRASTUS, HIEROTHEUS, ARCHELAUS.—These three writers of alchemical verse are apparently of the eighth to ninth century, being cited by no earlier author, and resembling Stephanus and his followers in their declamatory style.

- Θεοφράστου φιλοσόφου περὶ τῆς αὐτῆς θείας τέχνης διὰ στίχων ἰάμβων. (Ideler, II. 328. Goldschmidt, *ibid.* 34.)
 Ἱεροθέου φιλοσόφου περὶ τῆς αὐτῆς θείας καὶ ἱερᾶς τέχνης διὰ στίχων. (Ideler, II. 339. Goldschmidt, *ibid.* 42.)
 Ἀρχελαου φιλοσόφου περὶ τῆς αὐτῆς ἱερᾶς τέχνης διὰ στίχων ἰάμβων. (Ideler, II. 343. Goldschmidt, *ibid.* 50.)

SALMANAS from his style and language appears to be of the ninth to tenth century and wrote a work Μέθοδος δι' ἧς ἀποτελεῖται ἡ σφαιροειδὴς χάλασι κατασκευασθεῖσα παρά τοῦ ἐν τεχνουργίᾳ περιβόητου Ἀραβος τοῦ Σαλιμανᾶ. (B. II. 864.)

PSELLUS.—The famous Michael Pselus (1018–1078) wrote two alchemical works of no originality and of no special interest for our theme. They were, however, of importance as a means of spreading alchemical ideas in Western Europe.

- (α) Τοῦ Ψελλοῦ πρὸς τὸν πατριάρχην κυριότατον Μιχαῆλ· περὶ τοῦ ὅπως ποιητέον χρυσόν. (Parisiana, gr. 2328, f. 10; 3027, f. 52.)
 (β) Τοῦ μικροῦ καὶ πανσόφου Ψελλοῦ ἐπιστολὴ πρὸς τὸν ἀγιώτατον πατριάρχην τὸν Ξιρίλλου περὶ χρυσοποιίας. (Parisiana gr. 2327, f. 1 and other MSS.) (*Cat. MSS. Alch. Gr.*, Vol. VI.)

COSSIAS.—Probably c. A.D. 1090 as shown by the use of the barbarous terms σαλάνιτρον, τζάπαρικιον, ρασούχθη. His work is entitled Ἑρμηνεία τῆς ἐπιστήμης τῆς χρυσοποιίας ἱερομονάχου τοῦ Κοσμά.

NICEPHORUS BUXEMPDES.—A writer of the thirteenth century and inhabitant of Constantinople. Despite its late date his work does not display the character of Western or Arabic alchemy, but is derived from the work of Democritus and his school. It is entitled:

- Νικηφόρου τοῦ Βλαμυῶδου περὶ χρυσοποιίας. (B. II. 452.)

ANONYMOUS WORKS.—In addition to the works which bear an author's name there

¹ These treatises are catalogued by Miller as existing in the MS. Y 13 of the Escurial. Though mentioned in the list of contents (copied from the old list of M. 296) they are

not to be found in the MS. itself. (E. Miller: *Catalogue des Manuscrits grecs de l'Escurial*, 1845.) (See *Cat. MSS. Alch. Græc.*, Vol. V.)

are a number of anonymous treatises and fragments. Of these a few are of interest. Certain MSS. contain the *Lexicon of Gold-making*, Λεξικὸν κατὰ στοιχεῖον τῆς Χρυσοποιῆς (B. II, 4), a dictionary of alchemical terminology. It is not very informative. Occasional items such as

Ἄνδροδάμας ἐστὶ πυρίτης καὶ ἀρσενικόν.

are of value, but some of the substances are defined on the system of *obscurum per obscurius*, and other definitions involve contradictory statements. Thus the term *Mugnesia* is explained three times in an entirely different way. A part of this *Lexicon* has clearly been compiled at a late date and unintelligently, but it contains a residue of valuable information.

A list of alchemical symbols contained in certain MSS. is of great value. The MSS. as a rule employ symbols in place of the names of the substances employed. The list of these covering several folios and reproduced by Berthelot (Int., 104-120) has been of use in interpreting the MSS.

§ 5. *Substances used by Alchemists.*

The Greek alchemists employed a considerable variety of substances in their operations. Some can be identified. The first essential ingredients of their operations are the metals, gold, silver, copper, mercury, iron, tin and lead. These were termed σώματα or true bodies, in contradistinction to ἀσώματα, substances other than metals. In addition to the substances that we know as the metallic elements, the σώματα included a number with metallic lustre formed for the most part of mixtures or alloys of true metals. Among these were the following :

ἀσημέν.	Asemen.	A lustrous alloy of varied composition, silver, copper, tin, lead and mercury being frequent ingredients.
χρυσόκοραλλος.	Chrysocorallus.	Apparently a superfine gold or substance more fine than ordinary gold. Its composition is not known, but it may have been a fine red gold-copper alloy.
κλαυδιανός.	Claudiane.	A copper-lead alloy.
ἤλεκτρον.	Electrum.	A gold-silver alloy.
μελυβδόχαλκον.	Molybdochalkon.	A copper-lead alloy, or perhaps a metallic sulphide.
ὠρείχαλκον.	Orichalkon.	A form of brass containing copper, zinc, and perhaps arsenic.
σιδηρόχαλκον.	Siderochalkon.	Presumably an alloy of copper and iron.

Besides the metals and their alloys the alchemists had at their disposal a great number of native minerals. Many of these may be identified, such as :

ἀλάβαστρος.	Alabaster.	Possibly also a preparation having the appearance of alabaster.
σττυπηρία.	Alum.	Not always identical with modern alum and possibly used as a term for arsenic.
ἀνδροδάμας.	Androdamas.	Possibly arsenical pyrites.
στίμμι.	Antimony sulphide.	
ἀργυρίτης.	Argyrite.	Perhaps native silver sulphide or argentiferous galena.
ἀρσενικόν.	Arsenic.	Certainly orpiment, yellow arsenic sulphide.
ἀρσενικόν ξανθόν.	Yellow arsenic.	Orpiment, as distinguished from white arsenic.
κύανος.	Blue.	Probably azurite, native hydrated copper carbonate, but possibly native hydrated copper sulphate.

άλμυρία, ἄλμη. καδμεία.	Brine. Cadmia.	Perhaps also used figuratively for other liquids. A product deposited in smelters' flues, chiefly consisting of the oxides of zinc, copper and arsenic.
φιμόθιον.	Ceruse.	White lead, but also perhaps other white substances such as arsenic trioxide.
χάλκανθος.	Chalkanthos.	Impure copper and iron sulphates derived from the oxidation of pyrites.
χαλκίτις.	Chalkitis.	Probably the same as Chalkanthos.
χρυσόκολλα.	Chrysocolia.	Apparently malachite, but also used in other senses in these texts.
κιννάβαρις.	Cinnabar.	Native mercury sulphide, but the word is also used of realgar and perhaps red lead, which are all similar in colour, and were imperfectly distinguished one from another.
γη.	Earth.	Earths of various kinds are used, Chian earth being perhaps the commonest.
ίος.	Ios.	The term has the meaning of 'rust' or 'calx,' and also the sense of the Latin 'virus.' The use of the word is often difficult to follow.
λιθάργυρος.	Litharge.	This translation is doubtfully correct. The sense in which the alchemists use the word is that of 'silver-producing stone,' and it is doubtful whether lead oxide is ever intended.
δασύςτος. τίτανος. μάρμαρον.	Lime. Limestone or chalk. Marble.	The word is used as a generic term for preparations resembling marble in appearance, as well as for marble itself.
μαγνησία.	Magnesia.	Not the modern magnesia, but usually an alloy of the four base metals, copper, iron, lead and tin: the sense of the word appears to be very wide.
μίλτος. μίσυ. νίτρον. ώχρα.	Minium. Misy. Natron. Ochre.	A term used for red lead, realgar and cinnabar. Basic iron sulphate. Native soda. Perhaps has the additional meanings of realgar and cinnabar.
πυρίτης.	Pyrites.	The term probably includes iron and copper pyrites, galena and mispickel.
σανδαράχη. ἄλς. σῶρι. θίον.	Realgar. Salt. Sori. Sulphur.	The modern Sandarac is a resin. Similar in nature to misy. The term includes not only the element sulphur, but also similar substances such as arsenic sulphide. The term has not, however, the wide meaning it acquired in mediæval times.

A host of less important and often more obscure materials were used. These include honey, gum, milk, bile, urine and vegetable products. A complete list extends to some five hundred items.

§ 6. *Imitation of Silver.*

Many alchemical recipes are concerned with the making of silver and of the alloy ἄσημον. This was expected to have the brilliant metallic surface

and general appearance of silver. Such recipes are found mainly in the earlier texts, in particular in the *Physica et Mystica* of Democritus, and in the Papyri of Leyden and Stockholm. The methods employed in the preparation of silver or asemos fall into two groups.

- (a) Processes for the whitening of copper by means of arsenic.
- (b) Recipes for the melting together of such metals as would give a hard and white alloy with a silvery lustre.

(a) The usual method of whitening copper was to coat it with some preparation of arsenic and then to heat gently. A superficial layer of copper arsenide is thus produced. It is white and lustrous, tarnishing to a yellow tint, much as with silver. One recipe indicates the boiling of copper with an arsenical solution which would whiten the copper in the manner still used in the familiar 'Reinsch test' for arsenic.⁸ These recipes can be used in the laboratory to produce a whitish metallic substance, with some resemblance to silver. One recipe attributed to Democritus runs as follows:

Λαβὼν ἀρσενικὸν σχιστὸν,⁹ ποίησον πέταλα¹⁰ βάλλε εἰς τεῦχος στρογγύλον καὶ καῦσον ὀπηνίκα δὲ διαγελάσῃ,¹¹ ἐπιβαλὼν γάλα (πάλαι) ἐξουρικός τὸ μηκέτι ῥέψαντι ὀπηνίκα δὲ παγῇ, ἄρον καὶ λείωσον¹² μετὰ στυπτηρίας ἐξηποριθείσης οὖρῳ δαμάλεως ἡμέρας 3' καὶ ἀναξηράνας εἰς ἥλιον, λείου πάλιν ἄλμην, τοῦ αὐτοῦ ὁλὸς ἀνθος ἐπίβαλλε, (ἔχε) ἡμέρας 3', καὶ γίνεται, καὶ λαβὼν ἀναξήραινε πάλιν εἰς ἥλιον, τοῦτο βάλλε εἰς τεῦχος, εἴπαι ἐλαίῳ κικίνῳ ἢ ῥαφανίνῳ¹³ ἕως ξανθὸν (γίγνηται), τούτῳ ἐπίβαλλε¹⁴ χαλκὸν, καὶ λευκανθήσεται. Τοῦτο δὲ αὐτὸ ποιεῖ καὶ ἡ σανδαράχη . . . (B. II. 54.)

This recipe is typical and neither more nor less lucid than most. A mixture of arsenical substances and organic matter is prepared and projected on copper. The dilution of the arsenic with inert substances ensures slow volatilisation and therefore protracted action on the metal, while the presence of organic matter protects the copper from oxidation and reduces the arsenic compounds to the elementary condition in which they are most active. The reaction of the arsenic and copper produces a layer of the white and lustrous copper arsenide. In certain other recipes the copper appears to have been melted with the arsenic compounds producing a solid white alloy.

(b) The other method of preparing silver was the making of an alloy, white in colour and fairly hard, by fusing together various metals or their

⁸ It is quite possible that this recipe may owe its success to the presence of silver or mercury in the mixture used.

⁹ Probably arsenic trioxide.

¹⁰ Metallic leaves or foil, presumably of copper.

¹¹ διαγελάσῃ. The sense of διαγέλασθαι here seems very doubtful. The word recurs in other recipes.

¹² λείωσον 'temper' or 'soak.' The word has the sense of treating a solid with a liquid.

¹³ These oils are probably not actual 'castor' and 'radish' oils (v. note 24).

¹⁴ The sense of the word in Greek alchemy seems to be simply 'place upon,' or, as the later alchemists said, 'project.'

compounds. The recipes indicate the preparation of the following alloys or metals.

- (i) Tin. Purified by methods similar to some in use at the present day, tin is said to yield *ἀσημον*, a lustrous metal resembling silver, to which, indeed, pure tin has some likeness.



FIG. 3.—THESE DRAWINGS ILLUSTRATE TYPES OF APPARATUS FOR DISTILLATION AND SUBLIMATION CLOSELY RESEMBLING THAT USED IN CHEMICAL WORK UP TO THE CLOSE OF THE EIGHTEENTH CENTURY. (MS. PARIS, GR. 2327, F. 81.)

- (ii) A lead-silver alloy seems in one case to be indicated.
- (iii) A copper-zinc-tin alloy with some arsenic. This is identical with some modern speculum metals which are white and exceedingly lustrous.
- (iv) Copper with about 1 per cent. of arsenic and a small amount of silver. This would almost certainly be white and lustrous.

- (v) Copper-lead-iron-arsenic alloy. This would be white, but as the quantity of lead and arsenic does not appear its properties are doubtful.
- (vi) Copper-iron-lead-silver alloy. Certainly white, since only 36 per cent. of copper is used.
- (vii) Tin with traces of copper and mercury. Probably the copper would harden the tin and the mercury would improve its lustre.
- (viii) Copper-zinc alloy with traces of arsenic and other metals. Since only 40 per cent. of copper is present, this alloy will be white.
- (ix) Copper-silver alloy (50 per cent.). This is harder and slightly less lustrous than pure silver.

These alloys are prepared by methods which seem unnecessarily complicated to us. The complication is due in part, at least, to the fact that the alchemist had no means of judging the purity of his materials or of finding out the composition of a satisfactory product. Small differences of composition often profoundly modify the colour and other properties of an alloy, and a chance success has often been attributed to the use of some inert ingredient. The retention of such ingredients leads to the adoption of these complicated mixtures. The making of alloys is not easy even to-day, for, during fusion, volatilisation or oxidation removes such metals as zinc, arsenic, lead and mercury to an extent which cannot be certainly predicted. Thus slight variations in the conditions of fusion often alter considerably the appearance of the product.

§ 7. *Imitation of Gold.*

The preparation of a gold-like substance was the main object of practical alchemy. The problem was far more difficult than for silver. For a metal to pass as gold it had to withstand the fairly reliable tests then available.

First of these was the test of the touchstone. The gold was rubbed on a hard black stone and its quality judged from the colour and extent of the streak produced. To pass this test a metal would have to resemble gold in colour and in hardness.

Second was the test by fire. This rules out alloys of base metals, but a slight oxidation at a high temperature was evidently not considered incompatible with gold. Modern jewellers' gold will not stand prolonged heating without change, since it always contains copper. Much native gold is also contaminated with copper, and this would help to minimise the failure of the artificially produced gold to satisfy the conditions of the fire test.

Third was the density test. The high density of gold cannot be imitated by any alloy of baser metals, but although density measurements to detect impurities in gold had been used by Archimedes in his famous experiment, it seems unlikely that it was generally applied in the early days of alchemy.

Thus for an alchemist to believe that he had prepared gold, he would have had to make a metal, closely resembling gold in colour and hardness, of high density, and little affected by atmospheric action.

The recipes for making gold fall into three well-marked classes :

- (a) Manufacture of alloys analogous to brass.
- (b) Preparation of debased gold.
- (c) Superficial treatment of metals.

All three methods are in present use in the preparation of artificial jewellery.

(a) *Manufacture of alloys analogous to brass.*

Brass-like alloys, including some of the alloys of copper, tin and zinc, used to-day under the names of *ormolu*, *oroide*, *Mannheim gold*, etc., were certainly prepared by the Greek alchemists. The problem of making these was difficult, because zinc, which gives the yellow colour to brass-like alloys, was unknown as a metal to the Greek alchemists. The alloys which contained zinc were made by them through the medium of cadmia, an impure zinc oxide found as a deposit in the flues of smelting furnaces. This cadmia was of inconstant composition, varying with the nature of the ore from which it was derived. Such variation makes successful results hard to reproduce, since small changes in the proportion of zinc have a considerable effect on the colour of the resulting alloys. Moreover, the volatility of the zinc yielded by the cadmia would be an additional source of difficulty.

Many alloys thus produced do not admit of certain identification; the following, however, appear to have been made by these recipes.

- (i) Complex copper-tin-lead-iron alloys. These are yellow if the proportion of copper be sufficient.
- (ii) Copper amalgam. The amalgam containing 13 per cent. mercury is used for artificial jewellery at the present date.
- (iii) Copper-zinc alloys containing traces of other metals. These have a good golden colour when about 20 per cent. of zinc is present, and are known at the present time as *Dutch metal*, *Mannheim gold*, *pinchbeck*, etc.
- (iv) Copper-silver-lead alloys.
- (v) Copper-tin-lead alloys.

As an example of this type of recipe I quote the following, which is less complicated than many :

Democritus *Physica et Mystica*. (B. II. 44.)

Τὸ κλαυδιανὸν¹⁵ λαβὼν, ποίει μάρμαρον¹⁶ καὶ οἰκονόμει ὡς ἔθος, ἕως ξανθὸν γένηται. Ξάνθωσον οὖν· οὐ τὸν λίθον λέγω ἀλλὰ τὸ τοῦ λίθου χρήσιμον· ξανθώσεις¹⁷ δὲ μετὰ στυπτηρίας ἐκσηπτιωθείσης θείῳ, ἢ ἀρσενικῷ, ἢ σαιδοράχῃ, ἢ τιτάνῳ, ἢ ὡς ἐπινοεῖς. Καὶ ἐὰν ἐπιβάλλῃς ἀργύρῳ, ποιεῖς χρυσόν· ἐὰν δὲ χρυσῷ, ποιεῖς χρυσοκογχύλιον· ἢ γὰρ φύσις τὴν φύσιν νικῶσα κράτει.

¹⁵ Copper-lead alloy or perhaps a bronze containing lead.

¹⁶ A marble-like white preparation.

¹⁷ The nature of the yellowing is not

very clear. Most of the substances used are arsenical: στυπτηρία is evidently used in the sense of 'arsenic' by some of the alchemists.

The 'gold' made by this process was a copper-silver-lead alloy possibly containing arsenic also. No modern information is available concerning such alloys, but there is a strong probability that they would be yellow.

(b) *Preparation of debased gold.*

The second type of recipe for making gold employs a considerable quantity of the metal. Such methods are called by the Greek alchemists διπλώσις, i.e. a doubling of the weight of gold. They depend mostly on the fact that, while silver gives a greenish and copper a reddish colour to gold, the admixture of both copper and silver hardly alters the tint of true gold. The alchemist did not regard himself as in any way falsifying gold, but rather believed that the gold acted as a seed which, nourished by the copper and silver, grew at their expense until the whole mass became gold.

Such alloys are fairly easy to make, but need a considerable outlay of gold. They were thus less sought after by alchemists than alloys formed with a larger proportion of the less costly base metals.

The recipes describe the preparation of alloys of the following types, some of which are to-day legalised on the Continent just as are 18-carat gold and other gold-copper alloys in this country.

- (i) Gold-copper alloys with small quantities of other metals, notably zinc and arsenic. This corresponds to our modern 14-18-carat gold, possibly made somewhat lighter in colour by the presence of zinc.
- (ii) Gold-copper-silver alloys, similar to the above but reproducing the colour of pure gold more closely.
- (iii) Alloys containing much copper and some silver and gold. The yellow colour of these derives chiefly from the copper, and the addition of precious metal prevents the alloy from tarnishing readily.

The following example of these methods may be given (B. II. 39):

Χαλκοῦ κεκαυμένου μέρη τρία χρυσοῦ μέρος α'. Χώνευσον καὶ ἐπιβαλε ἀρσενικόν¹⁸ καῦσον, καὶ εὐρήσεις θρυπτόν. Ἐτα λείψον δέξει ἡμέρας 3' ἐν ἡλίῳ: εἶτα ξηράνας, χώνευσον ἀργυρον καὶ γέλασον¹⁹ τι (!) ἐκβαλε ἐκ τούτου τοῦ συνθέματος, καὶ εὐρήσεις τὸν ἀργυρον ὡς ἡλεκτρον.²⁰ Τοῦτο ἴσω σύμμιξον χρυσόν, καὶ εἴεις ὀβρυζον καλόν.

The final product would be roughly gold 60 per cent., copper 20 per cent., silver 20 per cent., although the silver might form a greater proportion of the alloy than this. The colour of such an alloy would very closely resemble that of pure gold. The word ὀβρυζον may mean 'Gold judged good by the touchstone,' the original meaning of ὀβρυζα being 'a touchstone.'

¹⁸ Probably most of the arsenic is volatilised and a very base gold-copper alloy is produced.

¹⁹ Berthelot reads γέλασμα (see note 11).

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²⁰ The product would not be true electrum, but the yellow copper-silver alloy improved in appearance by the gold.

(c) *Superficial treatment of metals.*

The third type of recipe used for the making of gold operated on the metal superficially. These superficial treatments were hardly regarded as a true making of gold, and as a rule the word καταβαφή and not ποίησις is used to describe them. These methods also find their counterpart in modern practices. Then as now three chief methods of colouring metals were employed.

- (i) Coating the metal with a tinted lacquer composed of gums, etc., as brass is treated to-day.
- (ii) Tinting the metal with solutions which form a thin superficial layer of sulphides.
- (iii) Treating debased gold by removing the base metal from the surface by corrosive substances such as the sulphur trioxide derived from the calcination of the sulphates of iron and copper known as μίσιν and σῶρι. This leaves a layer of fairly pure gold on the surface. At the present day, nitric acid is used instead of the sulphates.

The following appears to be a recipe for a process of the third type: Democritus, *Physica et Mystica* (B. II. 46).

Χρυσόκολλαν τὴν τῶν Μακεδόνων τὴν ἰῶ χαλκοῦ παρεμφέρουσαν οἰκονόμει λειῶν οὖρῳ δαμάλεως ἕως ἐκστραφῇ ἡ γὰρ φύσις ἔσω κρύπτεται. Ἐὰν οὖν ἐκστραφῇ καταβαψον αὐτὴν εἰς ἑλαϊον κίκινον πολλάκις πυρῶν καὶ βάπτων· εἶτα δὲς ὅπτασθαι σὺν στυπτηρίᾳ προλειώσας μίσιν, ἢ θείῳ ἀπύρῳ ποιεῖ ξανθὸν καὶ ἐπιβαπτέ πᾶν σῶμα χρυσοῦ.

Apparently base gold or gold-like alloys 'σῶμα χρυσοῦ' are to be treated with misy, alumi, sulphur, etc. which attack base metal, but leave gold unaffected.

The following recipe appears to deal with the tinting of a metal by means of a layer of lacquer, coloured by various plant juices, to be applied to the surface of polished metal. (B. II. 48.)

Δέξαι κρόκον κιλίκιον· ἄνεις ἅμα ἀνθὴ τοῦ κρόκου τῷ προταγέντι χυλῷ τῆς ἀμπέλου, ποιεῖ ζωμὸν ὡς ἔθος· βάπτει ἀργυρον ἐκ πετάλων ἕως ἀρέσῃ τὸ χρῶμα· ἐὰν δὲ χάλκεον τὸ πέταλον ἔσται, βέλτιον. προκάθειρε δὲ τὸν χαλκὸν ὡς ἔθος. Εἶτα βαλὼν ἀριστολοχίας βοτάνης μέρη β', καὶ κρόκου καὶ ἐλυδρίου²¹ τὸ διπλοῦν, ποιεῖ πάχος κηρωτῆς καὶ χρίσας τὸ πέταλον, ἀπεργάζου τῇ πρώτῃ ἀγωγῇ καὶ θαυμάσις.

§ 8. *Alchemical Apparatus and its use.*

Lines such as have been indicated give a reasonable explanation of those recipes which contain definite instructions for the making or colouring of a metal. Only a small part of Greek alchemical texts, however, consist of such recipes, which are, in fact, confined to the Democritan school of alchemical practice. Long sections of the other alchemists' works deal with the prepar-

²¹ Mentioned as a yellow dye-stuff (Lagercrantz: *P. Holm*, p. 191).

ation of the divine or sulphurous water, *θεῖον ὕδωρ*, the use and nature of which is obscure. There was controversy among the alchemists themselves as to its nature. Some held it to be mercury. In one or two descriptions it seems to be a solution of a polysulphide of calcium made by the action of sulphur and arsenic sulphide on lime. A third school treat it as a generic term for all liquids useful in the work. The issue is clouded by the homonymy practised by the alchemists, who give many names to the substances most important in their art.

I quote a typical passage dealing with this divine water:

Zosimus: *Περὶ θείου ὕδατος*. (B. II. 184.)

Καλεῖται ὕδωρ θεῖον δι' ἄλμης, διὰ ὕδατος θαλασσίου, διὰ οὐρου ἀφθόρου, δι' ὄξους, δι' ὀξάλμης, δι' ἐλαίου κακίνου, ρεφανίκου, βαλσάμου, γάλακτος γυναικὸς ἀρρενοτόκου, καὶ γάλακτος βοῆς μελαίνης, καὶ δι' οὐρου δαμάλεως, καὶ προβάτου θηλείας τινὲς οὐρου ὄνειου· ἄλλοι καὶ ὕδατος ἀσβέστου, καὶ μαρμάρου, καὶ φέκλης, καὶ θείου, καὶ ἀρσενίκου, καὶ σανδαράχης, καὶ νίτρου, καὶ στυπτηρίας σχιστῆς, καὶ γάλακτος πάλιν ὄνειου, καὶ αἰγείου, καὶ κυνίνου, καὶ ὕδατος σποδοκράμβης, καὶ ἄλλων ὑδάτων ἀπὸ σποδοῦ γινομένων· ἄλλοι καὶ μέλιτος, καὶ ὀξυμέλιτος, καὶ ὄξους, καὶ νίτρου, καὶ ὕδατος ἀερίου, καὶ Νεῖλου, καὶ ἄρκτου, καὶ οἴνου ἀμηναίου, καὶ ραίτου, καὶ μορίτου, καὶ σικερίτου καὶ ζύθου· καὶ ἴσα μὴ τὰ πάντα ἀναγινώσκω διὰ παντὸς ὕγρου.

From such a passage as this, which is typical of many others, it is well-nigh impossible to deduce anything concerning the nature of this 'divine water.' It may mean that the 'divine water' is given all these names, or perhaps, as the other passages hint, that the 'divine water' is a term for all liquids used in 'the work.' The recipes which employ the 'divine water' seem to indicate that it had the power of dissolving or disintegrating the substances used in the art, and that it had also the property of colouring metals. It was evidently also a volatile substance, or at any rate one which produced a gas or vapour which attacked metals. Both mercury and solutions of easily hydrolysed sulphides have this power in some degree, and it is fairly certain that sometimes at least the term refers to these.

The Marian school is especially concerned with this 'divine water,' which takes an unimportant part in the Democritan school. The Marian school, of which Zosimus is the most important representative, sets out methods of operation which, while obscure, are yet consistent. The prime material operated on is not as a rule disclosed, but when revealed appears as copper or the alloy of the four base metals known as the *τετρασόμια*. This is treated in a peculiar form of apparatus, the invention of Mary, which to some extent resembled the modern reflux extractor (Figs. 4, 6), by exposure to the vapour and condensed liquid derived from boiling 'divine water,' mercury, sulphur or arsenic sulphides. It must be remembered that these substances may be used, in accordance with alchemical custom, as covering names for some analogous substances the nature of which the authors wished to conceal from all but the initiated. The condensed liquid, together with any fused or dissolved products of its interaction with the copper, dropped back into the lower part of the apparatus and was

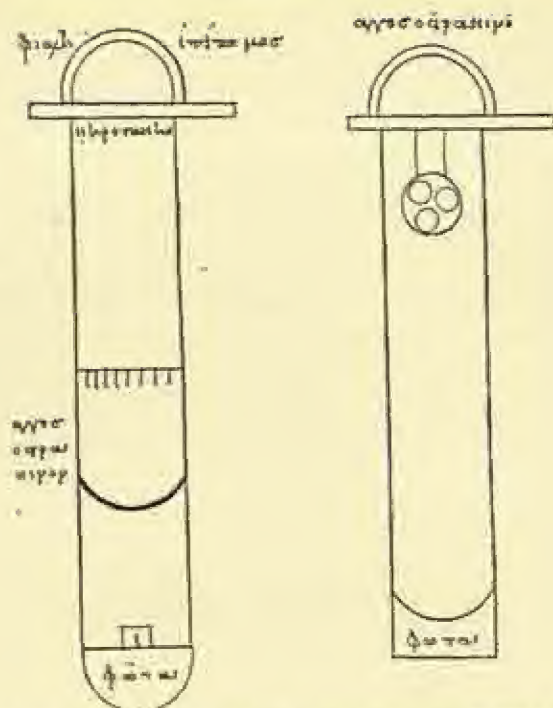


FIG. 4.—THE LONG FORM OF KEROTAKIS APPARATUS, AS SHOWN IN MARCIANUS 299. A RECONSTRUCTION OF THE LEFT-HAND PIECE OF APPARATUS APPEARS IN FIG. 5.

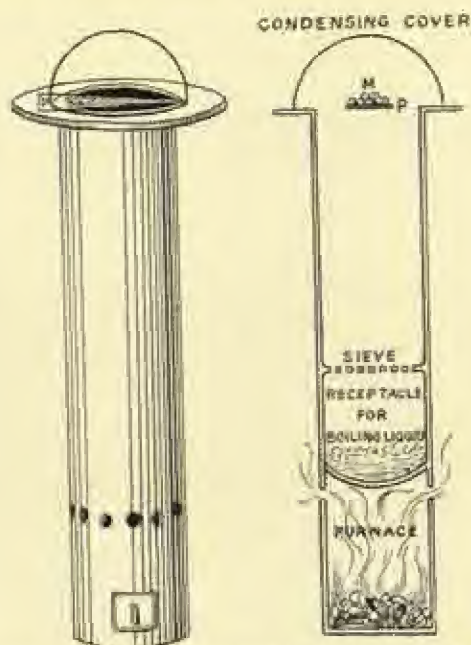


FIG. 5.—CONJECTURAL RESTORATION OF THE LONG TYPE OF KEROTAKIS APPARATUS.

there volatilised afresh. We are told that this process led progressively and continuously to a blackening, whitening and yellow coloration of the contents of the apparatus. Then followed a process called 'iosis,' of the nature of which no reasonable explanation can be given, though the alchemists regarded it as of high importance.²²

The apparatus used is illustrated by several sketches in the MSS., of which two are reproduced here (Figs. 4, 6), but the theories which have been put forward to explain the use of the apparatus, and, indeed, the whole process outlined above, are not satisfactory. Two views of it appear from the chemical standpoint to represent possible methods of procedure.

The first is based on the fact that the alloy of copper and mercury containing 13 per cent. of mercury is of a golden tint. It is occasionally used at the present time for artificial gold. This alloy is not easy to prepare by the direct mixture of mercury with melted copper, for the high temperature of the latter volatilises the mercury. Nor does the direct action of mercury on copper produce it, for a mixture of unchanged copper and the silvery amalgam of copper containing much more mercury than 13 per cent. is produced.

The process used by the alchemist was probably the following:—Mercury was placed in the lower part of an apparatus such as Fig. 4 or 6,²³ and copper or an alloy containing much copper on the κηροτακίς or 'palette' (P) in the upper part. The mercury being heated from below, boiled and condensed on the cups (φιάλη) and on the copper, which was disintegrated and finally dissolved. Impurities (oxides, etc.) remained on the κηροτακίς or on the sieve-like diaphragm below, while a pure copper amalgam collected in the lower part of the apparatus (ἄγγος δατηράκιον), into which the droppings from the kerotakis fell. The copper blackened during the process as a result of oxidation. The white amalgam formed contained much more mercury than the yellow gold-like amalgam which was required; and continued and steady heating caused the mercury to be volatilised from this and to escape by leakage or by diffusion through the porous earthenware until the required alloy was produced.

Evidence is to be found in the texts to support this view of the process, but it was not the only purpose for which the apparatus was employed, for it was probably used as a sublimation apparatus of the type of the aludel, and also for the treatment of metals with sulphur. The process of making copper amalgam of suitable composition must have been far from easy, and indeed the alchemists who employ the κηροτακίς give the impression of dealing with a

²² The meaning 'violet coloration' seems improbable. A. J. Hopkins, *Chemical News*, Vol. 85, p. 49, upholds the view that this process was the formation of a purple bronze similar to the Japanese *shaku-do*. This theory, though explaining the meaning of 'iosis' in a reasonable manner, seems inconsistent with the processes that precede this operation. Conceivably 'iosis' may be the final removal of the *ios* or tarnish formed on the surface of the metal.

²³ The figures are copies of those in the

MS. of St. Mark, folios 112, 193, 196; Figs. 4 and 6 represent the same type of apparatus, the globular lower portion of Fig. 4 being probably some form of heating apparatus. Several other sketches are reproduced in Berthelot's *Introduction à l'étude de la Chimie des Anciens et du Moyen-âge*. Figs. 5 and 7 represent reconstructions of the apparatus of Figs. 4 and 6, based on the figures contained in the MSS. and the descriptions in the text.

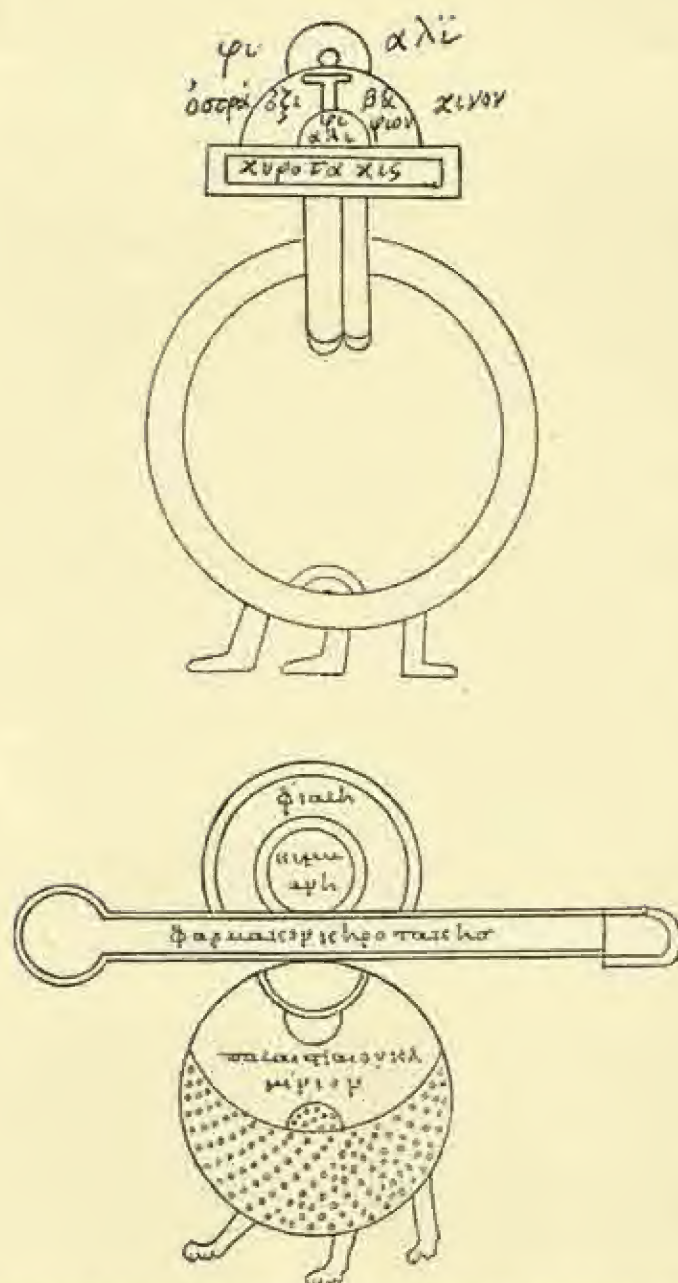


FIG. 8.—Two TYPES OF THE MORE COMPLEX KERYXALIS APPARATUS FROM THE MS. MARC. 300. CONJECTURAL RECONSTRUCTIONS ARE GIVEN IN FIG. 1.

most difficult problem. The author is aware of no other chemical process which is consistent with the descriptions, and could at the same time give the continuous blackening, whitening and yellowing which is so strongly emphasised by all the authors. The explanation given above is at least consistent with the two great maxims which run through so much of the alchemical literature.

Μετὰ τὴν τοῦ χαλκοῦ ἐξίωσιν καὶ μέλανσιν καὶ ἐς ὕστερον λεύκωσιν, τότε ἔσται βεβαία ξάνθωσις. (Agathodaemon Αἰνιγμα) (B. II. 115.) *After the refinement of copper and its blackening and its later whitening, then will take place the solid yellowing.*

Ἐάν μὴ τὰ σώματα ἀσωματώσῃς καὶ ἀσώματα σωματώσῃς οὐδὲν τὸ προσδοκώμενον ἔσται. (B. II. 115.) (Hermes.) *'If you do not disembody the bodies and embody the things without body, nothing which is expected will take place.'*

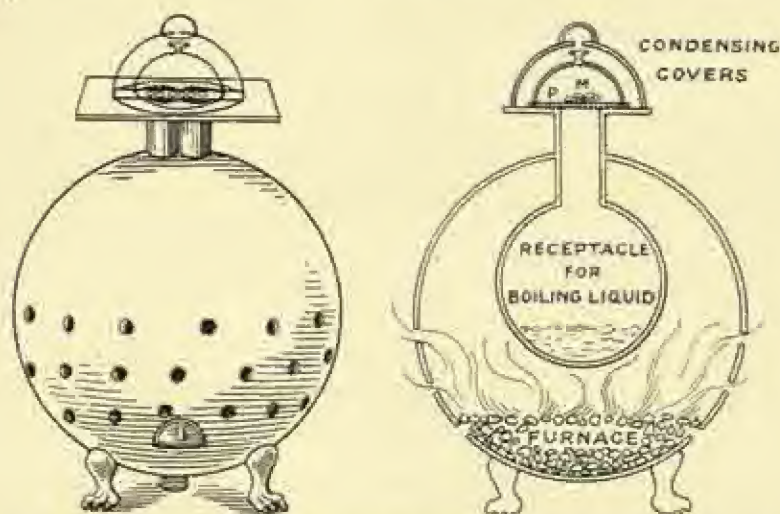


FIG. 7.—CONJECTURAL RESTORATION OF THE ROUND FORM OF KEROTAKIS, AS SHOWN IN FIG. 6.

The last is clear enough if we remember that σώματα has the meaning 'metallic bodies,' and ἀσώματα substances without metallic properties. Thus the meaning is, 'If you do not bring the metals to a non-metallic condition and then back to a metallic condition, nothing which is expected will take place.'

Consistent with the latter maxim is the method of treating metals with sulphur practised by the alchemist Mary. She employed the kerotakis type of apparatus for the treatment of metals with sulphur or with arsenic sulphide. The mode of procedure in such a case would be similar, the sulphur or arsenic sulphide being placed in the lower half of the receptacle. The metals on the kerotakis would be converted into sulphides which might dissolve in the melted condensed sulphur and be carried into the lower half of the apparatus. The black mixture of sulphides and unchanged sulphur collecting in this lower receptacle would then be the 'black lead' or scoria of Mary, which is said to collect in the 'Hades' or lower part of the apparatus. This 'black lead'

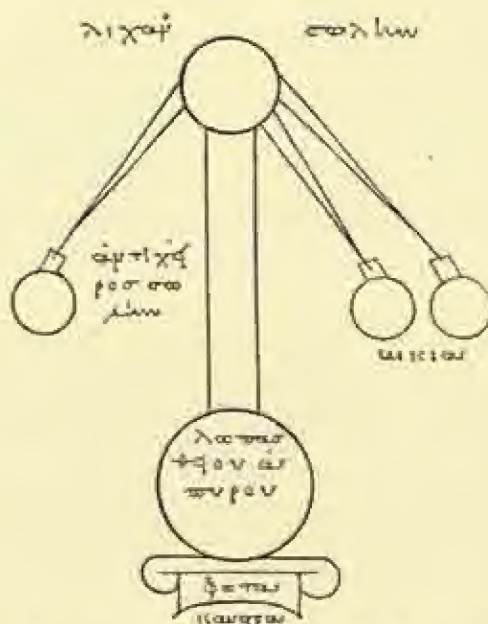
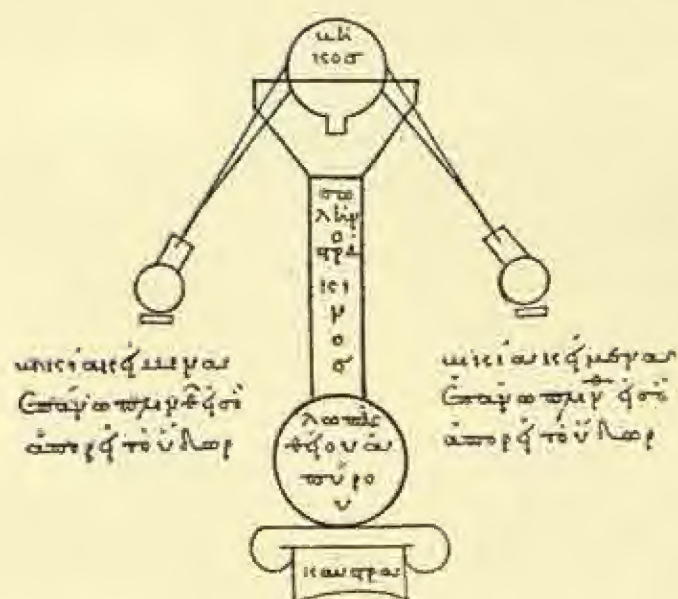


FIG. 8.—DISTILLATION APPARATUS (MS. MARC. 299).

when heated in air with 'oil of soda' or other flux could be reduced by a pyritic smelt to an alloy of the metals originally placed on the kerotakis. The process is quite a possible one and consistent with the texts, but the object of such a complex method of preparing an alloy may seem obscure. It may be that the difficulties mentioned on p. 128 prevented the use of simple melting of the metals, or again the sulphur and arsenic retained in this process may have favourably influenced the colour of the product. Colours are observed on 'blister' copper, as made to-day by a pyritic smelt which may have suggested the 'iosis' or violet coloration already mentioned as a problem.

In addition to the kerotakis and the simple aludel for sublimation, the MSS. contain numerous sketches of distillation apparatus.

The eighth figure represents a drawing from the Codex Marcianus 299 and

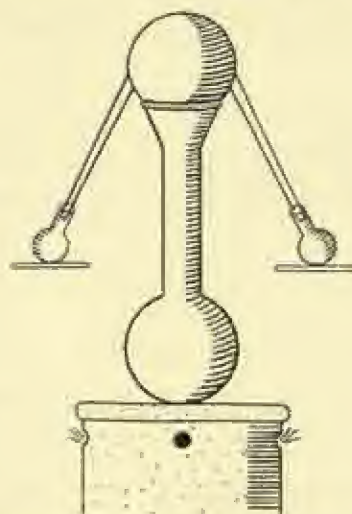


FIG. 8.—RECONSTRUCTION OF THE DISTILLATION APPARATUS OF FIG. 8.

a conjectural reconstruction. The drawing shows a type of apparatus used for distillation, which is very similar to that employed to-day. The globe marked βῆκος must have been luted into the funnel-shaped tube which surrounds it, but in all other respects the apparatus as figured appears to be practical and well designed. The value of the apparatus to the alchemists is not clear. They appear to have distilled sulphur from it and to have obtained liquids which they called *ἐλαίον κίτρινον* and *ῥοπαίνιον*, and to have used these in the colouring and treatment of metals. No liquid products except melted sulphur can be obtained by distilling sulphur, or any mixture of sulphur and a mineral substance. A theory has been propounded that these oils were in fact melted sulphur, but this liquid would solidify in a few minutes or seconds to a mass of monoclinic or plastic sulphur. Perhaps the word 'sulphur' was used in a wider sense, or again sulphur may have been distilled with vegetable oils, so forming sulphur-substituted organic liquids which would have the effect of tinting metals by formation of a layer of sulphide as is described in

the Democritean recipes.²⁴ Doubtless mercury was also distilled from the apparatus, though there is no definite statement to this effect.

A reading of the work of the alchemists will often lead to a consideration of a totally different conception of alchemy to that which we have put forward. In many passages the practical element is replaced by mystical and religious matters, and it has been thought that some alchemists were not seeking to make gold at all or indeed any other substance. No one can read the works of Democritus or Mary without feeling that they are practical metallurgical efforts undertaken with a definite purpose, even though mystical and religious elements are present. But the texts of Comarus, the visions of Zosimus, and parts of the work of later authors suggest that these men were not really interested in making gold and were not in fact talking about real gold at all. The practical chemist examining these works feels like a builder who should try to get practical information from a work on Freemasonry.

Alchemy always contains some elements of the mystical and symbolic. The puzzle is that the practical content of alchemy, which is the treatment and manufacture of metals, affords no evident reason or justification for the mystical atmosphere with which the subject has always been surrounded. The mystical side of alchemy seems of an antiquity at least equal to that of the practical, nor does its obscurity make it less important for an understanding of the subject. The representation of metals by planetary symbols, the symbols of the philosophic egg, and of the serpent, and numerous references to Jewish, Egyptian and Gnostic beliefs all go to show that alchemy had a spiritual significance as well as a practical utility.

Gold has always been of importance in religious symbolism. The comparison of its burnished brilliance to the sun was no recondite step. Thus at an early date each of the other six metals was connected with one of the planets. The heavenly bodies thus gave a religious significance to the *somata*. With the metals equipped with the astrological qualities the alchemist passes from the Lesser to the Greater World, to the 'Great Work' which is the aim of every mystical system.²⁵

F. SHERWOOD TAYLOR.

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²⁴ The terms 'radish' and 'castor' oils may refer to the taste of the substance. A bad radish has the type of flavour which might be expected in a sulphur-treated oil. The flavour even of pure castor-oil is sufficiently unpleasant to justify its name being given to these oils.

²⁵ The writer would wish to express his deep indebtedness to Dr. Charles Singer

and Mrs. D. W. Singer, both of whom have given him invaluable help at every stage in his investigations of the subject of Greek alchemy.

²⁶ This bibliography includes only such works on alchemy in general as are of special value to the student of Greek alchemy in particular.

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NOTE ON TWO ARCHAISTIC RELIEFS IN OXFORD

MISS HUTTON's valuable article on the archaistic reliefs in Oxford¹ contains two errors, which may as well be corrected at once. The first was pointed out to me by Mr. W. H. Buckler. Of the left-hand nymph in the representation of Pan teased,² Miss Hutton writes that the artist 'twisted the upper portion of her body round into a three-quarters frontal position, which he balanced by flinging the right arm back to fill the empty space behind the body. There is therefore no physical contact between the first nymph and Pan.'³ As a matter of fact she was grasping the end of Pan's leopard-skin with her right hand, just as in the other reliefs with the same subject,⁴ and swinging not her right but her left arm back.

The second slip is in the account of the Rhodian nymph relief.⁵ According to Miss Hutton, 'the whole surface has been so much rubbed down to conceal damage that the right-hand figure, whose heavy peplos had originally a pleated kolpos with swallow-tail points, appears to be clad in a transparent veil over an equally transparent tunic.'⁶

The terminology is a little difficult; but by *peplos* Miss Hutton must mean the himation; and *kolpos* she must be using, in a new sense, for what corresponds, in the middle nymph, to the old Ionic himation; and *pleating* must refer to the vertical folds. Now, to begin with, the surface of the whole relief is uniform, and is absolutely free from retouching. It is weathered from exposure in antiquity, but it has suffered nothing in modern times: it has been neither worked over, nor sandpapered, nor rubbed down, nor over-cleaned, nor tampered with in any other way 'to conceal damage.' I am not alone in this view. It is shared by Mr. Ashmole, a severe critic. It is shared by Mr. W. H. Young of the Ashmolean Museum, to whose opinion all archaeologists attach the highest value. Mr. Young says that not even a weak solution of acid has at any time been used to clean the marble: it has been washed with water, no more.

Miss Hutton believes that the nymph 'originally had a pleated kolpos with swallow-tail points,'⁷ that is, wore the same costume as her sisters. But her costume is perfectly normal as it stands. It is the same as is worn by the right-hand nymph in the Oxford Pan relief⁸ and its repetitions in Paris, Constantinople, Naples,⁹ and by Zeus in other archaistic reliefs.¹⁰

¹ *J.H.S.*, xlix. pp. 240-5 and Pl. XIV.

² *Ibid.*, Pl. XIV, 1.

³ *Ibid.*, p. 242, top.

⁴ E. Schmidt, *Archaistische Kunst*, Pl. XIV, 2, and Pl. XV, 1.

⁵ *J.H.S.*, xlix. Pl. XIV, 2.

⁶ *Ibid.*, p. 243.

⁷ *Ibid.*, Pl. XIV, 1.

⁸ Schmidt, *op. cit.*, Pl. XIV, 2, Pl. XIV, 1, and Pl. XV, 1.

⁹ See Hauser, *Die neu-attischen Reliefs*, Pl. I, 5, and pp. 34-5, nos. 43a and 44.

That an archaistic figure should look as if it were 'clad in a transparent veil over an equally transparent tunic' is nothing strange. What can be more transparent than the clothing of the Munich Tyche or the Isis from Pompeii, the archaistic male figure from Eleusis or even the archaistic Apollo in the Vatican? ¹⁰ *Delphice, perlucet.*

J. D. BEAZLEY.

¹⁰ Bulle, *Archaisismen griechische Rundplastik*, Pl. VII, no. 50; Pl. I, no. 16; Pl. VII, no. 49; Pl. VI, no. 43.



SARDANAPALUS AGAIN

THE fragment illustrated above was offered for sale in London last summer. It should belong to the new replica of the Sardanapalus from Castel Gandolfo, which was kindly shown me by Commendatore Paribeni in 1926, soon after its discovery.¹ The broken surfaces correspond pretty exactly, if my memory serves me aright: the execution is similar, and does not belie Curtius' date, the end of the first century A.D., though I should prefer to think it some years later.

Less vapid than the replica of the Sala della Biga, and free from retouching and restoration.

BERNARD ASHMOLE.

¹ Curtius in *Jahrbuch* 43 (1928), p. 281 (p. 294, note, for earlier publications); his illustration of the head at Corinth, from

Ameling's collection, is my photograph of 1921, at which time permission to reproduce it could not be obtained.

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 Edited by MARGARET M. HASLUCK. 2 vols. Pp. lxiv + 877. Oxford: Clarendon
 Press, 1929. Price £3 3s.

The author of these two volumes died in 1920 in Switzerland at the age of forty-two after several years of failing health. This is the third posthumous book that his widow has been able to publish. First, in 1924, came *Athos and its Monasteries*; then, in 1926, *Letters on Folklore and Religion*; and now these two volumes complete the harvest. Though in the *Letters* all matter that would more properly see the light in this present work was omitted, the two books have a close connexion. In the *Letters* we are allowed an insight into the author's tastes and his manner of working, and we see how ideas shaped themselves in his mind; in these volumes we see the side of his work which he would as a rule turn to the world. The ideas are the same, but here they are supported by a wealth of sifted and sorted evidence. Even here the work is not everywhere as Hasluck would have wished to leave it finally, and this for two reasons. The editor warns us that of the whole material only a third was left in any way ready for the press; one-half was in a provisional form; the rest existed only as notes, which she has now woven together into as connected a form as possible. Much material also, too fragmentary for any other purpose, has been included in the very long and interesting footnotes. All, in fact, that pious care could do to make the most of Hasluck's legacy has been done. And the second reason is that with Hasluck's manner of working and with such subjects as he chose, finality was hardly ever to be reached: he might have gone on adding to and strengthening his papers almost *ad infinitum*. He took copious notes of his reading and these notes it was his ideal to keep by what he called a method of double entry. They were entered, that is, first as notes on whatever book he was then reading, and secondly they were rearranged as notes on any subjects which happened to be interesting him. These latter collections would gradually be worked up into articles. Work done in this way may clearly grow and grow, and many of his articles did grow a good deal in his hands between their original publication in this *Journal* or in the *Annals of the British School at Athens* and their final appearance in these volumes. But such articles are like a plant, and at any period of their expansion they are in a sense complete: it must only be remembered that, as evidence accumulated, Hasluck might very well have fortified, or perhaps modified, his positions.

These two volumes are divided into three parts, and, if fate had been kinder, all these sixty chapters would not have appeared in one book. In the first part Hasluck studies what he called the process of Transference, by which in this special case Christianity has at many of its sanctuaries in the Islamic area been forced to give way to the religion of the conquerors. Some of the chapters in the third part, the *Miscellanea*, were destined to go with these towards a fuller treatment of these transferences from Christianity to Islam and *vice versa*. The second part is devoted almost entirely to Islam; to it would have been joined the rest of the chapters in Part III, and with further material added a book would have been made to be called *Studies in Turkish Popular History and Religion*. We have thus before us part of the material for two separate books. Hasluck had further formed the idea of applying the principles acquired from his systematic study of popular religion in Greece and Turkey to Palestine and Western Europe, and this would have produced two more books on Transference: one for Western Europe on transferences from paganism to Christianity and, to judge from hints in the *Letters*, from the cult of local saints to the cult of the Virgin and of the more important and central saints of Christendom, and one for Palestine on transferences from Christianity to Islam. These schemes seem to have resulted from reading the books that were most easily accessible to him in Switzerland,

where the special literature for Greece and Turkey was not to be so easily found as in London and in the libraries at Athens.

Everyone who has studied both ancient and modern Greece must have had his attention called to the question of what has survived from antiquity through the later ages and so down to the present day; it was as a special example of this wider problem that the subject of Transference, of the succession of one cult to another at some special sanctuary, interested Haaluck for a number of years. He asked himself whether or not a site sacred to one religion tended naturally to be holy to the adherents of a subsequent faith; whether, to come to the definite cases he was studying, a pagan sanctuary was the more likely to become of religious import to the Christians, or a Christian sanctuary in Turkey to the incoming Moslems, because it had been held in religious veneration by the earlier pagans or Christians. With this intention he examined the records and traditions of as many sacred places in the Nearer East, Christian and Islamic, as he could find. His results he gives in Chap. X. His conclusion was that the vogue of important holy places is governed by purely social and economic conditions. 'Once a holy place, always a holy place,' does not, in fact, in Asia Minor at least, hold good. Changes, he says, in political and social conditions, especially change of population, can and do obliterate the most ancient local religious traditions. The burden of proof always rests on him who would assert that any holy place has come to be venerated because of an ancient inheritance of sanctity from a previous religion. In general, Haaluck held, all claims to such survivals ought to be examined with great stringency, though he admitted that in certain countries, especially in Syria, the antecedent probabilities are greater than in Asia Minor that a Moslem site has inherited its sanctity from something earlier, Jewish or Christian. Here he laid great stress on the continuance of a Semitic population.

This generally sceptical attitude we think that anyone, who has been through the cases marshalled in this book, will regard as justified. An interesting exception, where Haaluck sees a real survival, is the cult—now we suppose only of the past—of the three saints, Nymphodora, Metrodora and Menodora, at the hot springs of Armudlu near Cape Poseidonium on the Marmora. In this case the rarity of female triads in the Byzantine calendar, their frequency in ancient art, and especially as sets of nymphs presiding over healing springs, the presence of an ancient inscription on the site, and a story of a relief, probably pagan, of three figures in the present bath, are all indications that lead Haaluck to say that 'there is therefore a strong presumption that the cult of the three saints of Armudlu is based on an earlier worship of the nymphs.' Two Moslem graves close to the bath are, he thinks, quite likely in the future to provide unknown *dedes* to succeed to the heritage of the nymphs and of the saints. But at Armudlu the evidence is exceptionally strong; a survival has often been claimed for reasons much less cogent, and Haaluck maintains that the ascertainable facts on the question in general should lead to a sceptical wariness rather than to any very easy acceptance of such survivals.

Clearly akin to this question of transferences and survivals are the general relations between two clashing religions, in this case between Christianity and Islam. One of these relations Haaluck studied in what he has called the 'ambiguous' sanctuaries, frequented alike by Christians and Moslems. From this he proceeded to a long study of the Bektashi derriashes, a sect of uncertain tenets but tolerant practice, standing socially at least between the two religions. Thus we get chapters on the distribution of their monasteries, on their relation to the Janissaries, and on their prevalence in Southern Albania. In their relations with Ali Pasha of Tepelen we touch Turkish history: He was attracted too towards another 'half-way house' between the two religions, which is to be discovered in the, from the Islamic point of view, heterodox tribes, Yuraks and Turcomans, of Asia Minor. Of these he gives in Chap. XXXIX such lists as can be compiled. Had time been given him, this inquiry might have produced a book of great interest on the social conditions and religious practices of these very obscure peoples. We say expressly 'practices,' because to Haaluck practices were always much more important, as being much more real, than the tenets of minds so vague and illogical as almost to deprive the word of meaning.

Such are the main lines of this book. But the circumstances of its production have led to the inclusion of a number of chapters on the most miscellaneous subjects, the general

bearing of many of which would probably have been made more plain had the author lived. As it is we must take them as a collection of papers, many of very great interest. We can only give an idea of this part of the book by quoting a few titles of chapters as worthy of special mention. Thus we find Chap. XLVI, *The Girding of the Sultan*; Chap. XLVII, *Columns of Ordeal*; Chap. XLVIII, *The Stylite Hermit of the Olympieum (at Athens)*; Chap. LII, *Terra Lemnia*; Chap. LIV, *The Caliph Mamma and the Magic Fish*; Chap. LV, *The Three Unjust Deeds*; Chap. LVIII, *The Prophecy of the Red Apple*; and these are only a few of many.

We have tried to give some notion of the contents of these volumes and as far as possible of the general lines along which the author's mind worked, and it is difficult to deal in any other way with a book so full of ideas and containing such a mass of information. So much material in so comparatively small a space was only possible because Hashuk wrote in a tightly compressed style that demands always the full attention of the reader. Anything like fine writing was abhorrent to him. Learning seemed to him so delightful in itself that it could dispense with all ornaments. He would never admit that learning was of any importance, but he loved it himself and wrote for those, and for those only, who had the same disinterested affection. The result is a concentration so austere that the interest of his work sometimes hardly appears unless the reader takes the trouble to look up the references which he gave so scrupulously. In reading his less than eight hundred pages one may find not a few chapters which in less economical hands would have easily each of them made a separate book. It is no wonder, therefore, that for these 708 pages of text Mrs. Hashuk has had to make an index covering 107 closely printed pages, and that the list which she has compiled of books quoted contains more than 1400 entries. For these labours, and for setting in order the elaborate notes and in these volumes saving everything that could be saved from Hashuk's workshop, everyone interested in the Nearer East and its recent history and social conditions will be most grateful to her. But these are not the only readers who will find much in this book. The ideas and principles involved in these papers are of general application; the student of ancient religion will find his horizon widened by these discussions of problems similar to his own, but often with more evidence at hand to help towards a solution.

R. M. D.

A Bibliography of the Works of J. B. Bury (with a Memoir). By N. H. BAYNES. 8½ × 5½ ins. Pp. viii + 184. Cambridge: University Press. 10s. 6d.

A bibliography is apt to be an arid affair, a rattling skeleton of research without the fleshly or spiritual graces: it is therefore a triumph for Bury that even a list of his works can suggest the liveliness of his mind. We range from Pindar to Browning and back to Theophrastus Simokatta; Ross Aylmer goes into choriambs and Edward Lear into Homeric hexameters; Gibbon is parodied and then edited; and then there are the great histories and the life of St. Patrick and the *Idea of Progress* and innumerable essays, lectures, articles and reviews on the science of history.

Mr. Baynes, Bury's successor in Byzantine studies, outlines the development of Bury's historical imagination in a memoir which could not be bettered. His task was an intricate one; Bury thought consistency no virtue, and at one moment he proclaimed that history was a science, 'no more and no less,' while at the next he wrote a defence of personal bias in historical research. Yet Mr. Baynes succeeds in presenting Bury's progress as an organic growth and draws a skilful, penetrating and diverting portrait of the mind of a great historian.

Excavations at Olynthus. I. The Neolithic Settlement. By G. E. MYLONAS. Pp. xviii + 108; 94 illustrations. Baltimore: Johns Hopkins Press; London: H. Milford, 1929. £1 14s.

This book is the first of a series which will describe the excavation of Olynthus by the American Expedition under Professor D. M. Robinson in 1928. It deals with a small Neolithic settlement (on a hill at the south end of the site), the discovery of which is described by Professor Robinson in the Foreword as 'accidental.' The word is not a happy one, J.H.S.—VOL. L

since Neolithic sherds from this place had been reported in *B.S.A.* xxvi. p. 31, and the reviewer had in fact told Professor Robinson exactly where they were found.

Chapter I treats of the site; Chapters II-VI describe the architectural remains, pottery, figurines, celts and small finds respectively; affinities with other sites are discussed in Chapter VII.

The arrangement is good, the description clear and exhaustive, and the illustrations numerous. The careful account of the kiln (and its modern descendant), and the classification of the celts are especially valuable. The suggested evolution from Neolithic prototypes of the bowls with incurved rim which characterise the local Early Bronze Age culture is, if not convincing, of great interest. Above all we are grateful for the recovery of many vase-shapes of the Neolithic period, hitherto all too rare in Macedonia.

A few points call for criticism. A plan of the whole Neolithic site (not only of the excavated area) is badly needed, and a section drawing of the excavated area itself would have been welcome. In view too of the great interest of the kiln, it would have been better to have given a section-drawing showing its exact relation to the stratified deposit and to the Byzantine walls, and to have stated explicitly what sort of sherds were found around and above the 'red basin' (p. 15). For some unexplained reason, neither plans nor illustrations have any scale, though measurements are, it is true, given in the text in some cases. The leading celt-types might with advantage have been drawn in section.

The conclusions are perhaps the least satisfactory part of the book. The pottery from Olynthus can *not* be, as Mr. Mylonas states, the first Neolithic ware known from 'Macedonia in general' (p. 20): the black-polished ware from Olynthus itself proves, if proof were needed, that the (identical) ware from Vardino I and Aivati is Neolithic too; and the author's opinion that Olynthus is earlier than Vardino I will have to be revised.

Mr. Mylonas, quoting from a preliminary report (such reports are little more than hasty impressions and should be quoted, if at all, with reserve), states (p. 33) that the second culture at Hagios Mamas is Early Helladic. This is now found not to be so. It is, in fact, not Early Helladic but, like that of Vardaroftsa I, Killinir I, and, to a large extent, Troy II, the North Aegean counterpart of Early Helladic. In order to show that this Early Bronze Age culture evolved in Macedonia direct from the Neolithic, as the author suggests, a great deal more evidence is required than that which Olynthus or any other site has so far produced. Does Mr. Mylonas realise the implications of his theory, which, if valid for Macedonia, must be valid for Greece as well? Is he prepared to see in the Early Helladic culture of mainland Greece a normal spontaneous development of the Neolithic? Yet this is what his theory involves. For (whatever is true of later periods) the course of things in Macedonia during the Late Neolithic and Early Bronze Age is closely parallel to that in Greece.

W. A. H.

The Sanctuary of Artemis Orthia; excavated and described by members of the British School at Athens, 1906-1910. Edited by R. M. DAWKINS. Pp. 420, with frontispiece, 208 plates, 148 illustrations in the text. London: Society for the Promotion of Hellenic Studies, Macmillan and Co., 1929.

The view is in process of becoming axiomatic that for dating products of Spartan manufacture the archaeologist can command a body of fact independent of, supplementing and, when it conflicts with, superseding, the evidence of style. It is, therefore, the more timely that before the process has completed itself, the grounds for this view, hitherto accessible only in scattered reports in the *B.S.A.*, should be assembled in one volume.

The book is untendentious; concerned to set out certain facts revealed by the excavation; not to relate them to the history of art as known before it took place or has been since discovered; but inside these modest limits clear as to the nature and infallibility of the evidence the excavation has to offer. It provides us with a long and continuous archaeological sequence, the order of which rests upon the stratigraphical evidence of the site, and this sequence . . . covers almost the whole field of what could possibly have survived to us of early Spartan art. . . . The sequence of objects rests entirely upon the evidence of the spade: to give positive dates is, of course, an entirely separate problem. It may, however,

be remarked that any corrections to be made in our positive dating by fresh external evidence will not in any way affect the relative dating established by the stratigraphy of the site.'

No one who has read Professor Dawkins' account of the excavation will deny this. No work could have been more carefully done; no greater degree of precision devoted to cataloguing, arranging and keeping separate the finds. The accuracy of the facts is not to be questioned. The validity of the inferences from them is another matter. At the end of the excavations not only were the excavators certain of the various stages in the history of the sanctuary, but that they could recognise (and distinguish in other circumstances) a unique style in the objects belonging to each of them. The continuity of style which one would expect does not, it is said, obscure the uniqueness of the stages. It is this belief that the historian must question, and though continuing to believe that what the stratification proves will never be shaken, may differ from the excavators in his estimate of what is proved. I will deal first with the *history of the sanctuary*, next with the *distinctness and sequence of the strata*: stressing those points where evidence from sheer stratification is reinforced by an argument from style.

The salient points in the history of the sanctuary may be stated briefly. Inside an area, which was early enclosed, a series of temples and of altars co-existed each on its own site (roughly) throughout Greek and Hellenistic times. The thrown-away objects from both accumulated in layers. On one occasion both were destroyed, probably by flooding from the river, and subsequently the level of the whole was raised by a layer of sand on which a new temple and a new altar were built. All this is fact and undeniable.

The first inference made by the excavators was that the objects found below the sand were earlier than those above it, except in clearly defined and easily recognisable cases where the stratification was disturbed. The validity of this inference no one will question.

The second inference is that so close is the continuity of style between the objects just below the sand and those just above it, that the new buildings were made and used immediately after the laying down of the sand. This is clearly an inference from style and will be discussed later.

Below the sand is the Geometric period, and a post-geometric stage, classified in two clearly distinguished styles, LAC. I and II. Above the sand the deposits again accumulated by the temple and two successive stages are distinguished, called LAC. III and IV. The deposits by the altar, although they have no strata below them, are said to belong to a later stage in the development of Laconian art, and are therefore classified as LAC. V. Here the evidence of the stratification appears to be set aside in favour of an inference from style. The style recognised as LAC. V is found also in several other pockets, but beyond the limit of the sand and not on top of the LAC. IV stratum.

The last stage of the art, LAC. VI, is found not clearly stratified above LAC. V, but in scanty deposits and in houses along with Hellenistic ware and Megarian bowls. This is used as the ground of an assumption that it continues till Hellenistic times. Its continuity with LAC. V is based on continuity of style.

This temple and altar were subsequently destroyed. By Roman times a theatre had been built on the site in such a position that it could use for its *scenae frons* the façade of another temple on the same site. The paved floor of this area covered the altar and the space between temple and altar, and the foundations of its seats covered the spaces all round both, and this kept the earlier deposits intact.

In this account of the history of the sanctuary it is clear that inference from style is used, (1) in asserting the continuity between LAC. II and III; (2) in asserting the continuity of IV, V, VI and Hellenistic work. Style is also used as the ground for distinguishing between stages within the strata; below the sand between LAC. I and II, and above the sand between LAC. III and IV. These chronological stages are based 'mainly upon the evidence of the successive styles of pottery' (p. 203). Of the other objects the majority are considerably restricted in time. The lead figurines, however, survive throughout, and the sequence they give is not without significance.

The result of Professor Droop's study of the pottery is set out in Chapter II. It reveals a degree of minute knowledge of the material which not many people will hope to rival. He is, moreover, in the fortunate position of having seen the pottery in its strata and so gaining a first impression of differences which subsequent prolonged museum study merely confirmed.

And to this knowledge he adds a power of direct intuition the results of which are final but incommunicable. He has, however, done his best to make the reader as familiar as he is with the material; the excellent tables (Plates 19-21) drawn up by Miss Tankard make the grounds of differentiation easy to see and understand.

The word "style" may cover at least four things: *Formgefühl* (whether the artist's own, or his generation's); *Technique* (silhouette, outline, etc.); *Fashion* (preference for certain patterns, colours, etc.); *Mechanism* (quality of varnish, slip, etc.). The evidence for date of the last three is only valid in certain circumstances. If we know (by stratification or otherwise) the dates of such fashions, etc., we can date their instances; but fashions, techniques, mechanisms, *per se*, may follow in any order, or even co-exist; the sequence is only certain when conditioned by increasing skill, or the solution of some problem.

The differences between LAC. I and II are in *technique*, the introduction of incision, in *fashion*, the occasional use of white, increasing elaboration of pattern, different choice of shapes, the intrusion of human figures. Here is the basis of a legitimate distinction in time. These things are obviously conditioned by increasing skill; and they coincide with the history of every branch of Greek archaic art.

The continuity alleged between LAC. II and III rests on the uniformity of style in the latest LAC. II and the earliest LAC. III. This uniformity rests ultimately on *Formgefühl* of drawing, as can be seen most clearly from a late LAC. II *lakaina* (Plates VII and VIII) and an early LAC. III cup (Plates IX and X),¹ and it may be taken as establishing this close proximity in time. The proximity is further borne out by masks from the same mould found below and above the sand.

Note, however, that the LAC. II layer varies considerably in depth (p. 16), and the very latest objects are found in certain specified areas (pp. 15, 16), and at least one vessel which establishes the uniformity (the *lakaina* referred to above) 'occupies a place of its own in the Laconian series.' Note also that very little of the LAC. II was found here (most of the examples are shown in Fig. 47), and the stages between the extreme simplicity of LAC. I and the comparative elaboration of late LAC. II and LAC. III are not fully represented by LAC. II as here found, and the material from the Menelaion is brought in to fill up the gaps. Professor Droop is therefore right in postulating a longer date for the existence of LAC. II than, from the depth of the stratum, he first supposed (*B.S.A.*, xiv, p. 46; *J.H.S.*, 1910). It looks, indeed, as if much of the LAC. II stratum was swept away by the flood or by the subsequent flattening of the surface to receive the sand;² and it will follow, if the stratum was interfered with in this way, that objects found in the same level are not necessarily contemporary.

Between LAC. III and IV the changes in style are chiefly changes in *fashion* (LAC. IV shows less use of slip, consequently more use of black directly on the clay: purple in ornament, and two simple patterns, are not used) and in *mechanism* (the slip, the black and purple are poorer in quality). What is there to show that this is not the work of good and bad craftsmen at the same period? The stratigraphy might here give a chronological significance to a classification which has none in itself; but this does not appear to be the case. The cross section of the site in Plate II, line E-F, shows that the most important deposits of this period accumulated not in horizontal but in sloping layers. The excavators accordingly made 'the test of earliness not the level but the nearness to the centre of a cone' (p. 4, note 2). To the lay mind it is difficult to believe that any conclusions as to sequence can be dogmatically asserted of deposits lying in this kind of formation: particularly as there is no kind of collateral security from a more obvious stratification elsewhere. Finally, the fact that no distinction between Leads III and IV can be made among the 58,000 figurines found in the deposit is highly significant. That a deposit of figurines extending

¹ Professor Droop, who does not admit *Formgefühl* as an element of style with chronological value, is led by his criteria of fashion and mechanism to set this vase late in LAC. III. But *Formgefühl* is here confirmed by stratigraphy.

² The loss of much of the later LAC. II stratum is also suggested by the fact that the 15,000 surviving lead figurines from under the sand show no difference in LAC. II. This would be surprising at this progressive time if one had a full series over the whole period.

over a century (a century, moreover, in which the art is said to have made rapid progress to its height and subsequent decline) should be exactly stratified and yet show no development is very difficult to believe.¹

Between LAC. V and its immediate predecessors there is one *mechanical* difference, the black is worse in quality. *Fashion* has decreed a disuse of slip, less use of purple, more white in figure details: a few simple patterns are not found, birds and animals are less frequent, a new pattern is used. But we return to one favourite LAC. II pattern, and as in LAC. II incision is rare. None of these criteria is valid for dating, unless they are stratigraphically secured. Unfortunately they are not. The earliest deposits beside the post-sand altar are of this LAC. V type (though one would naturally expect the altar to be as old as the temple); and the rest of LAC. V is found in isolated patches of deposit, but (so far as one can gather) nowhere directly on top of LAC. III-IV nor in any relation to the sand.

Collateral evidence for the relative lateness of LAC. V is, however, adduced from the figurines. It is said that by their help a layer in which there is little or no pottery can be recognised above LAC. III-IV, and from this distinction in the figurines one may infer a LAC. V date for pottery occurring elsewhere with such figurines. It seems, however, that the distinction observed in the figurines is mainly this, that the types are mixed in a different proportion: though there is also some distinction of style. The numbers of figurines found in the pockets seem too small to allow the proportion of types to be decisive in naming them Lead V: is the style decisive? It is noteworthy that there are several figurines of Lead V which are from moulds used in Leads III-IV or Lead VI (e.g. CXCIII. 21, 25 and 27 of Lead V = CC. 2, 1 and 5 respectively of Lead VI: CXCIX. 2 of Lead V = CXCVI. 7 of Leads III-IV), and in one case at least a mould used in Leads III-IV (CXCVI. 9) is still used in Lead VI (CC. 3).²

Lastly, LAC. VI. Its main characteristic is that it is extremely bad *mechanically*, slap-dash in drawing, and draws only the easiest things. These qualities may, however, coexist with even higher standards of workmanship than Laconian art ever attained. It appears to have been found only in houses or patches along with LAC. V and Hellenistic ware, but never in any relation to LAC. III-IV and never stratified at all. At least one of the pockets contained a mixture of Geometric, LAC. V, VI, and Hellenistic (*B.S.A.*, 1909-10, p. 16).³

Indeed the fact that there is practically no LAC. V or anything else on top of LAC. III-IV makes it clear that all the main deposits thrown out from the temple between the end of LAC. IV and the building of the Roman theatre were swept away; and that is the bulk of the late material. The arguments *ex absentia* which archaeology offers the historian, about the non-existence thenceforward of certain qualities in Laconian pottery, and the general cessation of Laconian art, have therefore no great security.

The division of the whole period, from the sand layer to Hellenistic times, into the four successive stages of steady decline, LAC. III, LAC. IV, LAC. V, LAC. VI, appears to be *not proven*. No doubt those who have conducted the excavation have much knowledge at their disposal which might meet many of the above criticisms. Yet, till these difficulties are met, their reconstruction must be regarded as tentative rather than certain. In the meanwhile there remains a very considerable body of knowledge which is beyond doubt: the foundation of the sanctuary in the Geometric period, the transition to the orientalising style, the development of that style to the Black-figure stage (though not to the height of

¹ Professor Droop states elsewhere (*J.H.S.*, 1916, pp. 1-2) that there is no separate layer of LAC. IV, which occurs always with a preponderating amount of LAC. III or V; but that in the absence of stratigraphical evidence we must rely on that of style.

² These identifications are made from the photographs and need to be confirmed; but they seem pretty certain.

³ In the same campaign and, so far as one can judge, in the same environment, was found the bronze sphinx (*B.S.A.*, 1909-10, p. 17) which Professor Droop states on p. 202 to be LAC. III. In this unstratified area beyond the sand and towards the river we have thus Geometric, LAC. III, V, VI, and Hellenistic. Professor Droop's statement (*ibid.*) that 'the above chronological grouping is in no wise *a priori* but rests throughout on good evidence from stratification' is, of course, a generalisation.

that style as known elsewhere), and the cutting across the Black-figure style of a sand barrier which enables us not only to distinguish definitely between the objects above and below it, but to recognise their contemporaries elsewhere.

It thus becomes extremely important to fix absolute dates for these events. The sand is fixed tentatively at 600 B.C. The chief argument is the identification of LAC. III with the Arkosilas cup, and of the King on that cup with Arkosilas II of Kyrene (c. 565-c. 550): the former identification is more certain than the latter. It is certainly surprising to find Spartan drawing so well almost of the times, but there is no knowing what may have happened in that astonishing half-century¹ which saw the eclipse of the Corinthian tyrants and brought Sparta, about 550 B.C., to the notice of Croesus as a world power.

Of the separate chapters, the most important are Professor Dawkins' sections on the ivory and bone, and on the terra-cottas, and Professor Droop on the vases and pithoi. The abundance of new material described shows that the value of the excavation is independent of the chronological facts it may or may not yield. Professor Dawkins' chapters show the same lucidity as his history of the sanctuary. The objects are well classified and the stratification of the individual pieces is easy to discover. The main interest of Professor Droop's chapter (and incidentally one of the most valuable results of the excavation) is the identification of 'Cyrenaic' pottery as Laconian. The grounds of this are forcibly set out and adequate contumely directed against those who reject it. Apart from this, the section suffers from the burden of proof thrown on the pottery; it becomes tendentious and selective. The chapter on bronzes is a useful supplement to Miss Lamb's excellent publication of some Orthia bronzes in *B.S.A.*, xxviii; it was, however, to be expected that the official publication would supply evidence of the stratification in cases where Miss Lamb does not mention it.

The remaining chapters sustain their authors' reputation. Mr. Woodward discourses with decorous gravity on the contributions made to Hellenistic and Roman epigraphy, and shows much precision in assigning the several inscriptions to their contexts. There are also a few pages for the inscriptions on minor objects, including the archaic ones. The use of the letter *upsilon* for a short syllable (Nos. 6 and 8) is doubtless a fancy of the compositor's. His chapter (with Mr. George) on the architectural fragments is more adventurous but less convincing. 'Orthia' and her cult are the subject of a very learned and useful chapter by Professor Rose. But should Alkman be quoted? He speaks of 'the Pleiads (or the pigeons?) at dawn,' and to suppose he does otherwise is not only to neglect the text in favour of a negligent scholiast, but to presuppose also a form 'Orthia' for which I know no evidence² till Roman times; nor even then that the *i* is short.

It would be wrong to close this review without an expression of gratitude not only to the excavators for the valuable material that they have brought to light, but to the Hellenic Society for undertaking on the occasion of its jubilee to make the material accessible to the public; and not least to the Society's Librarian, Mr. Penoyre, who has brought the undertaking so successfully to fulfilment.

V. W.-G.

Agrigento: topografia ed arte. By P. MASCORI. Pp. 238, with 162 illustrations in text. Florence: Vallecchi, 1929.

It is mainly through the generosity of Mr. Hardcastle that the further excavation of Agrigentum has been facilitated. From Signor Marconi, who is now in charge of the excavations in W. Sicily, we have the whole story of Agrigentum through all its different phases. The history begins with the early Bronze Age, when the site was occupied by Sicilians (Siculani I), and ends with the Roman occupation. As in the eastern part of Sicily, there is documentary evidence for the penetration of Mycenaean culture into Agrigentum;

¹ Herodot. I. 66, *στα 54 τε τι γὰρ ἀνὰ καὶ πλεῖστα οὐκ ὀλίγων ἀνδρῶν, ἀπὸ τε Περσέων πόλεις καὶ ἀστυνέμειν*. He is speaking of about 600 B.C., the prelude to the reigns of Leon and Hegesicles.

² Fig. 86, No. 9 (= *S.E.G.*, II. 55) gives us no such evidence. Cf. the very similarly written No. 3 (*S.E.G.*, II. 36).

in the early Sicilian cemeteries there are chamber-tombs side by side with the native 'a forno' type, there are Mycenaean bronze weapons and Mycenaean pottery. Though the official settlement by Greeks from Rhodes or Gela only took place in 582-0, there is evidence for an earlier Hellenisation of the Sicilian population in the new patterns in and shapes of vases; but more than this, Greeks probably settled in the district. These first Greeks must have come as pioneers before the actual settlement. That the traditional date for this settlement is correct is proved by the finds in the walls, the building of which would have been the earliest work. To the early years of, if not before, the actual settlement must belong the little shrines, of which several have been found, for among the remains of terra-cotta revetments and fragments is a head of archaic type (Fig. 88): this interesting head may be compared with one published by Kekulé (*Sic. Terracottas*, Fig. 1). Apparently, statuettes of archaic (Daidalid?) type were found by the bases of the two outdoor altars of Demeter and Persephone.

In the chapters on the nine great temples we get important evidence for the use of terra-cotta for revetments and architectural decoration. Seemingly the use of terra-cotta was confined mainly to the two earliest temples, A and B; it was used sparingly in C, and then stone took its place. The chapters on the art of Agrigentum show that artistic industry was almost exclusively confined to the production of objects in terra-cotta. Of sculpture in stone there is nothing that Signor Marconi will allow to native art except the Telamones, which are Peloponnesian in style, and a few remains of the pediments from the same temple, B. Without discussion, he refuses to allow Amelung's attribution of the Girgenti kouros to a Sicilian school, or Langlotz's to Kleonai. For him it is Attic, as the Acropolis boy is Attic and the main artistic influence from now on is Attic. From different sites in Agrigentum comes a long series of terra-cotta objects, mostly of types like those from other Sicilian sites—figure-vases (some perhaps imported from Rhodes), acroteria, reliefs, votive tablets, arulae. It is a difficult task to sort out the different influences, Dorian, Ionian, Attic, which lie behind this often composite Sicilian art. In the British Museum can be seen copies, given by Mr. Harcourt, of an early peplos-figure of Peloponnesian type: of a votive tablet with Heracles and the boar, which shows how lifeless the native Sicilian art of the late sixth century can be: of another tablet with a Gorgon, with short, folded chiton like the Nike on contemporary late sixth-century miniature reliefs. This Gorgon type, Signor Marconi calls Ionian for the strange reason that the Dorian type is rarely winged. Are the Gorgons of Syracuse, the Corfu pediment and Corinthian vases the rare exceptions? For the real native talent, which made the Sicilians such excellent coin-makers, we have to look to such reliefs as the young Heracles' head, which may justify the attribution of the Delphi Charioteer to a Sicilian school; it can be compared, too, to the Damarateion head. But the talent can best be seen as the delicate miniature reliefs which decorated the rims of pithoi and ritual dishes. Signor Marconi has a Sicilian chapter to add to what M. Courby has written—for the art lived on for over a century after it had died out in Greece. It is much to be hoped that Signor Marconi may be able, later, to publish more of the early objects found on the sites to complete this valuable book.

The Most Ancient East. By V. GORDON CHILDE. Pp. xiv + 257, with 24 plates, and 86 illustrations in the text. London: Kegan Paul, 1928. 15s.

To those who wish to orient themselves (in two senses) with regard to the most recent epoch-making archaeological discoveries in the East, Prof. Childe's book may be recommended. It is the only summary existing of the whole field from North Africa to India, from the 'Caspian' stone-users of Algeria to the prehistoric civilised people of the Indus valley by way of the 'Badarians' of predynastic Egypt, the Sumerians of Ur and Kish and al-'Ubad, and the Elamites of Susa, with excursions to Anatolia on the one hand and to Mr. Leakey's discoveries in Central Africa on the other; all with an eye on European prehistory. It is more than a work of vulgarization, for Prof. Childe always comments usefully and originally on the excavators' results. We have no space to enter here on any detailed discussion of his views, which do not directly affect prehistoric Greek archaeology. But we can see from his

summary of the Sumerian discoveries that we must more and more allow for a very powerful Sumerian influence on the early development of prehistoric Greek culture, exercised through Syria, Cilicia and Anatolia. Sumer takes its place alongside Egypt as another great source of inspiration in Minoan art.

The most novel chapter to most readers will be that on the Indus culture, with its undoubted Sumerian connexions, of which further proofs have been found since Prof. Childe wrote.

There are several misprints in the book, which perhaps shows some signs of hasty preparation. But it will, we hope, shortly see a second edition, in which these slips can be put right. Such a book must soon be brought up to date, or with the march of discovery it loses its value for those who want information on these matters. We hope that Prof. Childe will continue to act as an efficient 'Haison-officier.'

H. R. H.

Everyday Things in Homeric Greece. By MARJORIE and C. H. B. QUENKILL. Pp. viii + 140; 73 Illustrations. London: B. T. Batsford, 1929. 7s. 6d.

These authors have written agreeably and instructively on everyday life in the Stone and Bronze Ages, but their method breaks down when it is applied to commenting on a great literary text. The change of title is symptomatic of an uneasy conscience; great epic is not the record of everyday life. Further, what is Homeric Greece? Is it the Greece that 'Homer' portrayed, and if so, what Greece is that? Or is it the Greece of Homer's own day, and if so, what day is that? The authors seem to have despaired of an answer to this question, if indeed they ever formulated it; for while the ancient illustrations are chiefly drawn from vases of the sixth and fifth centuries and sometimes represent persons and things of which there is no mention in the poems (e.g. a jumper with halteres and a professional female dancer), representations of the buildings and antiquities of Mycenae and Tiryns appear along with them. It is difficult to see what this hotch-potch is supposed to illustrate; and still more difficult to conjecture why the Penelope and Telemachus scene from the Chios vase should have been re-drawn in modern style. To vulgarise an exquisite original in this way is a real offence; almost as great a one as to intrude into a meagre précis of the plot of the *Odyssey* such a comment as 'It went hardly with Nausicaa when she saw him again, and her heart went pit-a-pat. Hearts did in old Greece.' This is not the way to recommend great literature to the 'boys and girls of public school age' for whom the book is intended.

Inscriptions grecques et latines de la Syrie; I. Commagène et Cyrhéstique. By L. JALABERT and R. MONTEDE. (Haut-Commissariat de la République française en Syrie et au Liban, Service des Antiquités et des Beaux-Arts: Bibliothèque archéologique et historique, Tome XII.) Pp. 135. Paris: P. Geuthner, 1929. 75 fr.

The enormous and ever-growing mass of inscriptions discovered and published, restored and discussed, renders increasingly urgent the need of adequate *corpora* to render the material available for study. So far as Greek inscriptions are concerned, the Berlin Academy has rendered, and is rendering, an incalculable service to scholarship by the publication of the *Inscriptiones Graecae*, destined ultimately to include all inscriptions found on European soil. For Asia Minor the Vienna Academy has assumed responsibility, and in the two published sections of the *Tituli Asiae Minoris* we have the firstfruits of an undertaking for which we wish rapid progress and a successful issue. In the volume before us we have the first instalment of a *corpus* of Latin and Greek inscriptions from Syria—for as such it may best be described despite the modest disclaimer of the editors, who say that it is 'less a *Corpus* as modern science regards it than a bringing up to date of Waddington's *Inscriptiones graecae et latines de Syria*'—issued under the auspices and with the aid of the Académie des Inscriptions et Belles-Lettres. No better qualified leaders of the enterprise could have been found than Professors Jalabert and Montede of the University of St. Joseph at Beyrouth, who have long been known for the valuable contributions they have made

to the epigraphy of Syria, and who, in their excellent article on Christian inscriptions in the *Dictionnaire d'Archéologie Chrétienne* (xii. 623 ff.), have shown that their studies and interests have been by no means confined to the country of their adoption. In their difficult task they have sought and received assistance from a number of competent scholars, some of whom are named in the *avant-propos*.

The arrangement of the work is geographical and the area covered by the present volume extends from the crest of the Nemrud Dagb, at the northernmost extremity of Commagene, to Jibrin in the neighbourhood of Aleppo. Of the 258 inscriptions here presented, 210 are Greek and the remainder Latin. Among the Greek texts, 168 had been previously published, while 42 appear here for the first time; few of these, it must be admitted, seem at first sight to have any value, but experience teaches the epigraphist not lightly to dismiss any inscription as worthless. The treatment leaves nothing to be desired: lemmata, bibliographies and commentaries are sufficiently full, yet admirably concise and business-like. The texts are published in minuscules and only eleven are illustrated by line drawings, but we are promised a selection of facsimiles of dated inscriptions at the close of the work. The editors depart—regrettably, in the judgment of the present reviewer—from the traditional usage of epigraphical publications by printing the texts without capital letters, accents and punctuation, save in the case of the four longest documents (all of them relative to Antiochus I of Commagene), which, they admit, 'sans accentuation ni punctuation seraient inutilisables.'

Not that the last word has been said on these inscriptions. About the time when this volume appeared, Wilhelm published (*Wiener Studien*, xlvii. 127 ff.) a greatly improved restoration of a passage in No. 52, the Samosata inscription in honour of Antiochus I, now in the British Museum (*B.M. Inscr.* 1048a). A *corpus* does not close discussion; it gives to it a fresh incentive and increased value. Nevertheless, the work of Jalabert and Monterde marks an epoch and deserves the gratitude of all who are interested in the study of the ancient world.

M. N. T.

Typen der archaischen Architektur in Griechenland und Kleinasien. By CARL WEICKERT. Pp. 199. Augsburg: Dr. Bruno Filser Verlag, 1929. 24 M.

This book will be invaluable to students of early Greek architecture. It was planned on a larger scale, with illustrations and tabulated appendices. Weickert still hopes to carry out this bigger scheme, but the colleagues who persuaded him to print the essential matter at once were certainly wise. The book, which is confined to areas east of the Adriatic, is partly designed to correct the exaggerated importance which the masterly work of Koldewey and Schubert has given to the early architecture of Italy and Sicily. Greece and Asia were the cradles of Doric and Ionic, and they must be the starting-point of any search for origins.

Weickert divides his material into two main parts, before and after 600 B.C.: in the first he aims at absolute completeness, but in the second he omits some unimportant or imperfectly known monuments. Each part contains two descriptive chapters, chronologically divided at 750 B.C. and 550 B.C. respectively, and one concluding chapter of summary and generalisation. The value of such a collection of facts and references can scarcely be exaggerated. Weickert combines an exhaustive knowledge of the available literature with a wide acquaintance with the actual remains, both published and unpublished, and for many sites, especially Olympia and Samos, the student will find here much information not obtainable anywhere else. It is not Weickert's fault that many excavations have been so imperfectly described that no certain conclusions can be drawn from them.

The treatment is marked throughout by the greatest independence and sanity of judgment, and the book is full of illuminating comparisons and generalisations. These cannot be summarised in a short review; it must be enough to mention that Weickert is convinced of the wooden origin of Doric and of the derivation of the temple from the pre-Mycenaean megaron, and that he finds the ancestry of the peripteral scheme in such native works as Megaron B at Thermum. His handling of roof terracottas is especially striking and valuable.

There seem to be hardly any omissions, but something might have been said of the shrine at Vroulia in Rhodes and of the two porchless buildings on Mount Cotilias near Bassae. Misprints are numerous, but few are likely to mislead: the most unfortunate slip is on p. 158, where the length of the Ephesian Artemisium is given as 190 metres instead of 100.

D. S. R.

The Treasuries of the Greeks and Romans. By HERBERT NEWELL COUCH. Pp. 112. Menasha, Wisconsin: George Banta Publishing Company, 1929. Rs. 6d.

The purpose of this treatise is to give a critical account of all structures, from temples to purses, used in antiquity for the storage of valuable objects. Mr. Couch discusses a long series of difficult problems, such as the derivation of the word *θησαυρός*, the purpose of the tholos tombs, the identity of the Acropolis opisthodomos, and the function of the Delphian and Olympian treasuries. He has collected his materials with care and diligence, though the book is not free from mistakes and omissions, and his work has some value as a store-house of facts and an enumeration of theories, but the whole treatment is wordy and diffuse, and his own conclusions are seldom clear or instructive. The subject is really too big and too heterogeneous to be treated satisfactorily on this scale or in this fashion.

Die Ornamente der Griechischen Grabstelen Klassischer und Nachklassischer Zeit. By HANS MÖRIUS. Pp. 100; 72 plates. Berlin: Keller, 1929.

The completion of the great Corpus of Attic grave reliefs has given the author a splendid opportunity to attempt an analysis and a chronology of their ornamentation. The subject was treated by Brœnckner over thirty years ago, and the author's aim is to set up a 'natural' system of the ornament by the side of his predecessor's 'Linnean' system. He begins naturally with the Attic series, which he divides into five periods each centring round one or more dated monuments. The first ranges from about 425 to 417 B.C. and coincides with the Temple of the Athenians at Delos. The second is the period of the Erechtheion, a brilliant stage in the development of the Attic decorative style. The third runs from about 390 to 365 B.C. and corresponds to the period of the Asklepieion temple at Epidaurus. The fourth has two fixed points, the Mausoleum built between 353 and 351 B.C. and the Apollo temple at Delphi, dated by its building accounts to 342 B.C. Here the author notes the likenesses between the ornament of the sima of the Athena temple at Priene, which is twenty years later, and that of the Mausoleum, concluding that it is due to the architect Pytheos, who built both monuments. The fifth period belongs to the same stage as the Lysikrates monument and goes down to 317 B.C., the era of Demetrius of Phaleron, whose sumptuary law effectually checked the erection of grave reliefs. The last group is Hellenistic, a period in the second and first centuries, for the decree of Demetrius seems to have been strictly observed in the third century.

He then surveys in turn the Islands; Euboea; Boeotia, and Phocis; Thessaly, Macedonia, and Thrace; North-western Greece (Aetolia, Acarnania, and Ilyria); Southern Russia; and lastly the Peloponnese. A brief survey of the results from two aspects, the historical point of view and the artistic development of the ornamental types, closes this essay, which is illustrated with seventy-two excellent plates. There are two chronological tables, one of which gives full details of the evolution of the characteristic forms of the individual ornaments through the last four centuries B.C.—palmettes, volutes, acanthus, flowers, and profiles. The details are exceedingly well documented with a wealth of reference, and so compact is the matter and so close the argument that the reader needs the assistance of a good archaeological library to enable him to follow the successive steps.

It is remarkable that from the fourth century onwards Attic influence is paramount in the decoration of grave reliefs with a few exceptions. In Southern Russia the Ionic tradition still lingered, the Peloponnese as always remained independent, and Alexandria so far has shown no sign of Attic influence. Magna Graecia followed a course of its own. In the Peloponnese the author pays special attention to the Spartan stelai and monuments

with their peculiar ornamentation, and suggests a dating which seems a great improvement on that formerly suggested by the present writer. In the final section Dr. Möbius ingeniously parallels his successive groups in the evolution of the ornaments of the grave reliefs by comparing them with the contemporary statuary. These last few pages, though not so packed with material as the rest, develop extremely interesting ideas and provide a good climax to an important book.

A. J. B. W.

Classical Sculpture. By A. W. LAWRENCE. Pp. 419, with 169 plates. London: Jonathan Cape, 1929.

Mr. Lawrence's book, which includes the period from Minoan Crete to the end of the third century A.D., is intended, he tells us, 'to provide an up-to-date statement of what is known on pagan Greek and Roman sculpture'; to be comprehensive, and to avoid controversy, 'aesthetic discussion,' and, so far as possible, new opinions. It is intended, that is, as a text-book. Whether it is possible to avoid controversy on classical sculpture, even in a text-book, one may doubt, but this book is, in fact, filled with controversial statements, made without discussion as if they were well established.

The book shows every sign of great industry, but the value of so large a subject, treated in such detail, may be questioned. It tries to be too comprehensive, to include too much material in the space, the main outlines being obscured by a mass of details. There is little attempt to select, or to make the monuments illustrate their period, and in places, e.g. chaps. ix and xiv, the book becomes merely a list of monuments, without any apparent order. This lack of order is due partly to the way in which the book is divided. Almost a quarter is taken by introductory chapters ('Bases of Knowledge,' 'Materials and Methods,' 'Dress,' and others) which must each cover the whole period. This leads to a scattering and repetition of material. Some of these chapters might well be greatly compressed, others omitted, others incorporated in the rest of the book. Chap. ii (strangely named 'The Historical Significance of Classical Art') contains a short and insufficient sketch of the history, over the whole period, of the different types: naked male figures, draped figures (with omissions), reliefs and portraits. When the monuments themselves are described, the main points of development, the character of each period and the change from the preceding, are omitted, or mentioned only incidentally, e.g. the new study of the body at the end of the sixth century, is not mentioned in its place, and the change in the position of standing figures, at the beginning of the classical period, is described only casually in an aside.

The divisions of the periods are made in unusual places. The seventh and most of the sixth century are taken together. The ten years 480-470, with works of the beginning of the classical period, the Tyrant Slayers and Delphic chariot-war, are included with the archaic; 470 to 430 is taken as one period, and the difference in style between works of the time of the Parthenon and those of the temple of Zeus at Olympia is not emphasised; 430 to the mid-fourth century is treated as a transition to later art, although the division between Classical and Hellenistic is made at c. 280, not c. 320, between Hellenistic and Roman in the second century B.C. Of early classical sculpture Mr. Lawrence has little to say, except that "figures scarcely varied in proportion," that "faces and bodies all looked much alike," and that, beside Myron and the Master of Olympia, there were no sculptors of individuality. The next period is almost confined to the Parthenon, Phidias, Polykleitos and Cressilas, while a number of statues which belong to it, like the a.e. "Idolno," are attributed to the "School of Polykleitos," and put at the end of the century. The chapter on the fourth century is dominated by Praxiteles and Lysippos, and the style of Praxiteles is described as the only attic of the period.

A few examples may be given of the dogmatic way in which important questions are treated. Of the problem of Roman copies from Greek originals a short and quite inadequate account is given. It is stated that the copyist 'could not work in the presence of the original,' that 'the casts which he used were not made from piece moulds,' because 'this process was not employed,' and that he often 'had only a cast of the face.' A comparison of different copies from the same original is nowhere attempted.

Parallel to this is the account of the means employed for the execution of pediment sculptures:—'Small models or sketches were converted into marble on the larger scale by inferior workmen.' Of the Parthenon pediments: 'Attic carvers of this generation . . . only required to know the main outline of the composition.' We possess no information, and the matter is one for discussion, not dogmatism. The statement that in archaic times 'Greeks invariably first cut out the full face and profile . . . the rounding off of the figure was then effected towards the close of the work.' is opposed to the evidence supplied by unfinished statues which have been preserved (cf. Blümel, *Griechische Bildhauerarbeit*, p. 4, Plates 5 and 6).

Other casual statements might be questioned; for example: that the Ludovisi and Boston 'thrones' were originally placed touching each other; and that, on the Parthenon frieze, 'each block was allotted to two or more sculptors, who took one figure each,'—which might be admissible as theories, but can scarcely be allowed to pass as facts. On p. 62 there is a misunderstanding of 'Acrolithic': the wooden parts of the statue were not painted but gilded, the intention being to imitate the effect of gold and ivory. Attributions to individual sculptors are made very freely, including some of whom little or nothing is known, Pythagoras and Calamis.

Some of the dates might be questioned, as: 'Hera of Cheramyos' to c. 550; the Delphic twins (apparently) to the second half of the sixth century; Pericles after 430; grave relief of Hegeso to the fourth century. Hellenistic dates are admittedly uncertain.

It is inevitable that a review of a book of this kind by a scholar of established reputation should concentrate on what seem to be its weaknesses. Everything of value is taken for granted and passed over. The great industry and wide research employed in a book of such length and detail, the correctness of much of the information and the worth of many of the opinions expressed, need not be questioned. It is unfortunate that more care should not have been taken over the details, and a more open mind kept on some important questions.

H. J.

A Catalogue of the Ancient Marbles at Ince Blundell Hall. By BERNARD ARNOLD. Oxford: Clarendon Press, 1929. Pp. xvi + 139 and 51 plates.

This excellent catalogue serves exactly the purpose for which it was compiled, namely, to set before students a mass of material which is not accessible to the public. Photography and description are closely combined so that they shall be complementary rather than duplicatory.

The collection, like most of those made in the eighteenth century, is a dreary one. Out of the 398 sculptures described, it comes as a shock to find that only five can be ascribed to any period before the third century B.C. And of these five only one has high merit—the archaic relief of Zeus of sixth-century date (No. 259). The other four are mere oddments: No. 385, a diminutive head from a fifth-century relief; No. 267, a problematic relief of strangely inartistic quality, which may belong to the fifth century; a nymph cut from a fourth-century relief (No. 218), and a poor grave relief of the third century (No. 261).

From the rest it might have been hoped that a good deal would have been learned of the styles, methods, chronology and technique of the copyists of Greek sculpture. But here the author is working in a region where little or nothing has been, or perhaps can be, done, for it is a realm of δόξα pure and simple, in which one man's view is as good as another's. As though to give point to the uncertainties that envelop the student in these regions, the author employs a caution which might well deter the audacious from any further research. Thus, in his description and commentary upon Nos. 1-47 (a group which comprises almost all the complete or nearly complete statues which are derived from Greek originals), he employs, in reference to dating or to the supposed original, the words 'apparently,' 'probably,' 'seems,' 'appears,' 'perhaps,' 'possibly,' and other variations of doubt and uncertainty in no less than twenty-four separate instances (Nos. 1-3, 7, 9, 11, 12, 14, 16, 17, 20, 21, 24-29, 35, 36, 41, 44, 45). We are left with a feeling of despair, and a wonder whether we really have any firm ground at all in our judgment of copies.

Fortunately in the major instances we find some comfort. The 'Ince Athena,' the head of the Cassel type, the Apollo in the style of Paeonius, and the Thesens constitute the principal wealth of the collection; and fortunately a great deal is known about them and has been accurately set forth in the catalogue. And the author's views seem to be reasonable and acceptable. But they are not inspiring copies.

The amiable custom of eighteenth-century dealers and collectors of giving antique pieces to stonemasons and sculptors to retouch, to work over and to resurface, has unhappily destroyed the excellence of a very considerable number of pieces in the collection.

Some comfort is to be obtained from the Roman portrait heads, of which Nos. 99, 100 and 150 stand out as fine examples of Republican art; and the problematic portrait No. 88 is above the average. In the case of No. 99, no mention is made of the remarkable treatment of the hair, the technical interest of which makes this one of the most interesting pieces of the Roman series.

A few minor criticisms may assist the student. The inscription on No. 37 strikes the author as 'unusual.' It is not. A glance at late Roman or early Byzantine statue bases shows that Greek vowels were already beginning to lose their original values, a tendency now consummated in Modern Greek.

No. 41: for the first 'probably' read 'certainly.'

No. 43: Furtwängler's attempt to identify this 'Theseus' with the statue by Silanion hardly deserves notice, since we know almost nothing about Silanion and less about the statue of which Plutarch (Theseus 4) merely mentions the existence.

No. 64: a mutilated body recovered from the river Thames: so mutilated that it is impossible to call it either Greek or Roman work: but, with a lapse into incaution, it is here called Greek.

No. 63: no mention of the supports which are visible in the photograph but need further description.

No. 22: 'tridimensional.' If it means what it ought to mean, the word is otiose. If it means something further, it deserves explanation.

No. 153: the comparison with the hair of the Olympian Apollo is so far-fetched that it is better disregarded.

Nos. 410, 411 and 412 (mosaics): no indication as to the author's views on their authenticity, and no critical matter. Why?

The catalogue is essentially a work for advanced students and research workers. The general public will find that private collections are not quite so exciting as they might have imagined.

S. C.

Antike Plastik: Walther Amelung zum sechzigsten Geburtstag. By several contributors. 11½ × 8½ ins. Pp. x + 281; 20 plates and numerous text-figures. Berlin and Leipzig: Walter de Gruyter & Co., 1928. Rm. 40.

Intended as a *Festschrift* for Amelung's sixtieth birthday, this volume was published as a tribute to his memory, for he had passed away before the work was completed. But the book is none the less a worthy memorial from his colleagues and pupils, for it deals with those aspects of ancient art that claimed his interest and attention throughout his life. Antique sculpture is the common theme; and thus, unlike most collections of *strenua*, it has unity and real significance.

The essays vary in length and scope and treat a great diversity of subjects, from the archaic period to the later Empire. Of the forty-nine which make up the volume the following are perhaps of the most general interest:—M. Bieber's paper on late Hellenistic female figures from Cos, which gracefully refers back to Amelung's own study of the Mantinea base and summarises the results of intervening research into this important phase of later Greek sculpture. Bosch-Gimpera's publication of Iberian warriors' heads from Cerro de los Santos in Barcelona and Murcia. Bullé's notes on the development of the sculptured group illustrated by three Würzburg terracottas of men leading horses (after 450 B.C.). Byvanek's observations on West Greek sculpture, apropos of a female head in

the Hague. Hedler's publication of a Hellenistic relief fragment in Budapest. Ippel's notes on Ptolemaic stucco heads in the Pelizäus museum at Hildesheim. Karo's remarks on the Arringtons merely allude to Studniczka's and Kaschnitz's criticisms of this much-discussed work and pass over Sieveking's notes on it in *M. Jah.* 1928, 233, where it is dated at the earliest c. 100 B.C. and compared with the Berlin limestone head from Palestrina; Karo remarks that it is neither pure Etruscan nor pure Roman. Kaschnitz compares a series of second-century Etruscan terracotta heads in the Vatican and in Munich and notes the Italic exaggeration of the already exaggerated Asiatic prototype. Langlotz assigns to the early seventh century an important votive-relief from Tarentum; the style is Cretan and the closest parallels are the relief with a chorus of women and the Lion-tamer and warrior from Olympia (*Alt. Mitt.* 1918, 48). The small terracotta group (c. 500 B.C.) of a alien carrying off a maenad at Reggio is noted by Lehmann-Hartleben as an interesting attempt at reproducing in three dimensions a familiar motive from contemporary vase-painting. Ippold publishes a new replica of the Myrmion Heracles from Alcalá la Real (Andalusia) now in Madrid. Mingazzini confirms the traditional identification as Alexander Severus of the colossal statue in the Naples Museum. Müller dates the two late Roman heads in Dresden as respectively c. 290-300 (Herrmann 406) and c. 350 (Herrmann 410). Orsi describes some little-known fragments in Syracuse, notably a male torso (c. 500 B.C.) with a draped back. Miss Richter deals at length with a fine bronze hydria in New York, observing that it was cast, not hammered, and afterwards finished with a chasing-tool; she assigns it to Argos and dates it about 460 B.C. Robinson illustrates an excellent Roman copy of a Nike, found at Antioch in Pisidia, which probably reproduces an Alcamaenian or Paconian type. Rumpf gives the first adequate account of a mid-sixth-century limestone statuette in Leipzig, Naucratic in style with certain Samian characteristics. Schröder publishes an attractive limestone head of a girl, perhaps from Tarentum, lately acquired by the Albertinum in Dresden. Sieveking adds to the number of Greek athletic figures of about 440 B.C. a small bronze replica which has recently entered the Munich collections. Studniczka reproduces the new hollow-cast archaic bronze head at Karlsruhe and places it 'nicht allspät' in the seventh century. Waldhauer makes some useful contributions to the intricate subject of the dating of Roman copies.

These random notes are merely intended to convey an idea of the profusion of archaeological material, much of it quite new, to be found in this valuable book.

Γραμμάτ Στῆλαι Δημητριάδος-Παγασῶν. By A. S. ARVAXTOPOULOS. Pp. 179; 10 coloured plates, 203 figs. in text, 8 plans. Athens: Sakellarios, 1928.

The derogatory remarks on the excavations of the British School and the Greek Archaeological Society which form a feature of the preface to this book leave one in doubt whether the author is unable to appreciate the value of these discoveries or unwilling to do so. Fortunately, their position is unassailable; they have been recognised for the last twenty years as adding an essential chapter to prehistory; our only regret, therefore, is that the discoverer of objects as important as the stelai from Demetrias-Pagassai should tarnish their publication by such an unwarranted attack.

These stelai first came to light in 1907 during the examination of the fill between the wall of a small Greek fifth-century tower and the larger tower built round it in the Roman period; other towers yielded similar treasures. Since then, a brief monograph has appeared in the *Ep. 'Apx.* for 1908, but this was too slight to bring the stelai into the currency of the archaeological world; none of them, for instance, was illustrated in Pfuhl's *Maieres*. Their long-awaited publication has now begun in batches of ten, of which this is the first. Here, however, much is included besides the pictures and descriptions of the stelai; namely, accounts of the excavations at Demetrias and Pagassai (with the former name is identified the site which has the credit of producing the objects in question), of the discovery of the stelai, of the methods adopted for preserving their colours, and of other antiquities found.

As for the stelai themselves, they are, of course, among the most interesting relics of ancient painting. The fact that they are decorated with pigments instead of with relief is

notable: the technique of the painting with its mixture of shading and outline is significant: and the different styles, provincial though they may be, nevertheless throw light on the development of this branch of art in a period concerning which we know less than we might. There is much still to be done towards dating the monuments more closely: epigraphy dates them approximately between the later fourth and the second centuries. The details, too, of furniture, costume and perspective might keep commentators pleasantly occupied for some time.

The most interesting picture will, I think, prove to be that of Hediate (previously published in *Ep. 'Apx.*, 1908) with her elaborate bedroom, her reliable old nurse, her dead baby and her grief-stricken husband.

The illustrations in colours are by Gilléron père, a fact which is in itself reassuring. The photographs which supplement them should, however, have been larger. The plates suffer because colour has been used to mask inferior draughtsmanship, but many of the topographical photographs are really good, and, unlike the groups of terracotta figurines on pp. 46-7, are not reduced more than they should be. We shall await the second instalment with impatience.

Colour in Homer and in Ancient Art. By FLORENCE ELIZABETH WALLACE. *Smith College Classical Studies*, No. 9. Pp. 83, with 1 plate. Northampton, Mass., 1927.

Miss Wallace has done a useful piece of work in collecting, classifying and discussing the colour words of Homer. To this discussion she has added a short and handy account of colour as used in Egyptian, Aegean and Hellenic works of art, and a not very illuminating sketch of some scientific theories of colour, ancient and modern.

As regards Homer, she reaches the interesting conclusion that he is far more sensitive to 'value,' i.e. the presence or absence of light, than to hue, thus endorsing the main contention of Gladstone, the pioneer in this field. Unfortunately she does not relate this important general principle to particular adjectives: hence her treatment of πορφύρεος, perhaps the most puzzling word in what for convenience we must call the 'colour' vocabulary of Homer, is far from satisfactory. It is defined as covering the darker shades of ποινίξ, which ranges from cardinal's red to deep magenta, and is treated so consistently as a 'hue' word that 'his heart purpled greatly' is offered as a literal translation of πολλά . . . κροδίη πορφύρε. The fact that the adjective is applied to waves and the sea should have put the writer on her guard; obviously all shades of red are here excluded, and the fact that the water in question is always disturbed, cleft by the outwater, churning in the wake, meeting the rush of a swollen river, shows that the broken and gleaming quality of the surface is the essential point selected for description. This is also the point of the passage (702 A) in the *de Coloribus*, to which Miss Wallace makes a brief and inaccurate reference. There ἀλουρυγῆς, the post-Homeric equivalent of ποινίξ, is associated with πορφυροῖδης, but in such a way as to exclude the notion of hue. There is no reason to doubt the derivation of πορφύρεος from φύρω, the gleaming of a broken surface is the primary, the warm glow of a dyed garment the secondary meaning. This affords an explanation of the use of the corresponding adjective by Latin poets.

The treatment of ἐπίξ is also careless. It is said to be the 'smooth, rippling surface of a calm sea' and to be 'regularly μέλας, as is the still water of springs.' ἐπίξ occurs four times only in the poems, and thrice it is said to be raised by one of the two stormy winds, Boreas and Zephyros, once with the addition μέλας: δὲ τε πόντος ὅπ' αὐτῆς. The darkening of the sky is reflected in the water, and the preliminary gusts herald the rising storm.

The principal merits of this paper are the thoroughness with which the material has been collected and the excellence of the descriptive index.

H. L. L.

Bilder Griechischer Vasen, herausgegeben von J. D. BEAZLEY and PAUL JACOBSTHAL. Heft 1. **Vasen um Meidias**. By WALTER HARLAND. Pp. 22; 24 plates. Berlin: H. Keller, 1929. 25 M.

This is announced as the first of a series of publications of Greek vases intended to reveal their beauty to the amateur as well as to offer some new material for the student. The illustrations are entirely photographic, and can therefore be trusted for the study of style, but as a necessary result the whole subject of a vase-painting can seldom be reproduced, and small portions of the design have to stand by themselves. The text, which only amounts to about twelve pages, gives a brief but clear account of the style and subjects of the vase-paintings and of the painters contemporary with Meidias, that is to say, with the Peloponnesian War. Some of the vases are hitherto unpublished. On the other hand, for some of the most familiar, such as the Meidias hydria in the British Museum, a reference is given to Pöhl. The notes supplement the text by a number of lists of vases assigned to various masters, after the manner familiar in Professor Beazley's work. The next two numbers promised in succession are to be on 'the Berlin Painter' and the Vases of Kertch.

Musée National du Louvre. Catalogue des vases antiques de terre cuite. Troisième partie, l'école attique: 2^e, Les Vases à figures rouges. Seconde édition revue et augmentée. By E. POTTIER. Paris: Musées Nationaux, 1929.

This is a book that has done good service for a quarter of a century. It is in many respects a model: it is at once a guide to the collection and a history of the art; it is written for the scholar as well as the general public; it is clear, comprehensive, compact, and cheap. The second edition is a reprint of the first, with a fifty-page appendix of additions and corrections, and a few pictures.

To criticise the whole book would be to deal with most of the questions raised by red-figure: I confine myself to the appendix. It corrects a number of slips, does something to remedy the failings of the first edition (telescoping of the post-archaic period, leniency towards the restorer), and gives references to recent writings on the subject. My own work, from which the author dissents profoundly, he yet quotes with great fairness, though not, I must admit, with great accuracy. Thus, on p. xxv (G 167) we read, 'il conjecture aussi: $\delta\omicron\sigma\alpha\iota$ Σμικρὸν διὰ τοῦτο "il semble que (le vase) est de Smikros" mais il croit que la formule serait peu grecque.' The translation is Gaspar's: what I did was to reject it as solecistic (*Att. V.* p. 61). After this I hesitate to point out that $\epsilon\upsilon\theta\upsilon\mu\omicron\varsigma$ does not mean 'le favorable' (p. xxxvi), lest I be reported to have translated $\epsilon\upsilon\theta\upsilon\mu\omicron\varsigma$ as 'favourable.' At the bottom of p. xxvi 'same group' would seem to refer to 'the group of Euphronios' mentioned six lines before. On p. li, on G 401, it is not made clear that my list is not of 'vases grouped round the name of Euaion,' but of vases assigned to the same painter as *one* of the cups with $\epsilon\upsilon\alpha\iota\omicron\nu\kappa\alpha\lambda\omicron\varsigma$, that in the Louvre. P. xxi, G 48 was assigned by me, but to the Kleophrados painter, not to 'a painter of the workshop of Kleophrados.' P. xxi (G 132): there is no 'group bearing the name of Laches' at the place referred to. Of G 404 we read on p. li: 'placé par Frickenhaus dans une série de vases attribués au même artiste (*Londenvasen*, p. 35), groupement admis en grande partie par Beazley (*Attic. Vas. Americ.*, p. 153-154; *Attische Vasenmaler*, p. 340), mais d'où il élimine G 404 pour le placer dans le groupe du "Christienmaler" (*ibid.*, p. 400, no. 4).' I am not sure if one would gather from this that the Villa Giulia painter was discovered independently by Frickenhaus and myself: that my list chanced to be published before his (*R.M.* 1912, pp. 280-297); and that it is quoted by him in his book (*Londenvasen*, p. 35).

Finally, throughout his appendix Mr. Pottier uses the phrase 'placed in the group of' as a synonym for 'attributed to.' This relieves the monotony, but distorts the facts; and when he comes to something that has really been 'placed in the group of' someone, he has no means of conveying the notion to the reader.

One or two other corrections, some of them slight. P. xx, on p. 914, line 1: the suggestion is Jahn's. P. xxviii, on p. 957, line 23: the interpretation (uncertain) is Dümmler's. P. xlv, Hauser's date was not the first half of the fourth century, but 410-380. Albi-

zatti on p. xxix is a misprint (cf. *C. V. Cab. Méd.*), and G 553 in line 22 on p. lviii stands for G 558. The lekythos on Pl. xv is dated too late, and neck and mouth are modern. G 570 (p. lviii) is not Attic, but Italiote (*Vases in Poland*, p. 73), like a good many vases which pass for Attic in the Louvre (see *J.H.S.*, 48, p. 271).

On G 614 we read (p. lix) that 'a vase of this shape has been found in Boeotia (Ure, *Black Glaze Pottery*, Pl. 6, no. 18, 138).' But Mr. Ure wisely says nothing about G 614: the vase he publishes is of a common type (Pellegrini, *V.F.*, p. 231): G 614 is not like it, nor like any other ancient vase: in fact, it is not a vase at all, but a modern pastiche like G 166, made up of two ancient fragments, one of them the mouth of a lekythos. P. xxvii top, 'Hauser conteste ainsi [i.e. as well as Furtwängler] l'existence de ce prétendu Amasis II (i.e. p. 281).' Hauser never contested the existence of the painter called 'Amasis II' by Hartwig (see *F.R.* ii, p. 228), nor did Furtwängler (see *F.R.* i, p. 264): all they did was to agree with Six that the name of the painter was uncertain. This confusion of name and person crops up elsewhere in the book (pp. 974-5 on Apollodoros; pp. 929 and 986 on the Brygos painter: another good example, Deonna, *L'archéologie*, i, p. 412).

G 529, G 530, and G 558 have been cleaned since my observations in *J.H.S.* 48, p. 271: another vase which has been painted up in the same technique is the well-known hydria in Lyons (*Mos.* 12, Pl. 35).

It is hardly right to regret omissions, when so much has been given in little space. But the list of signing potters and painters on pp. 878-9, and even more that on p. 1078, might have been completely regrouped and redated (see *Burlington Magazine*, 1921, p. 235): Praxias, by the way, who figures in both lists, has been exploded by Rumpf (*Anc.* 1923, p. 276).

J. D. B.

Corpus Vasorum Antiquorum: France, fascicule 9 = Louvre, fascicule 6.

By E. POTIER. Paris: Champion, 1929.

Corinthian; Attic black-figure; Attic red-figure.

(1) Corinthian. Most of the vases figured here are Corinthian (by which I mean 'made in Corinth'—Mr. Potier seems to use the word in a wider and vaguer sense); but Pl. 4, 1 is Boeotian, and Pl. 7, 14 is Attic. Pl. 1, 10, and Pl. 1, 12, look Corinthian to me rather than Boeotian, but I don't feel strongly about them. Pl. 6, 3: 'inscription . . . ΑΓΑΝΟ, sans doute employé comme nom propre; l'épithète ἀγαυός est synonyme de *lenis*, *mitis*, *iucundus*, et l'on pourrait supposer un cadeau fait à un érémite.' One might also suppose that the owner's name was Aganon, that he bought the vase with his own money, and wrote his own name on it, or had it written for him, in the genitive.

(2) Attic b.f. In Pl. 64, 4, Pl. 65, 4, and Pl. 69, 6, the foot of the vase is alien. Pl. 65, 1, the 'basket' is a filmon, isn't it? Pl. 67 cannot belong to the 'more archaic group,' as the drapery is enough to show. Attributed to the Antimenes painter, not to his workshop. Published by Wrede in *A.M.* 41, p. 352. The style does not vary on the vase, the subject does. Pl. 70, 5 is assigned to the Lysippides painter in my *Attic B.f. a Sketch*, p. 39, no. 11, and Pl. 70, 7 to him or his school, *ibid.*, p. 41, no. 11. Pl. 72, 1, Leagros group, *ibid.*, p. 44, no. 22.

(3) Attic r.f. Pl. 34, 8: all of E that is antique is parts of the feet and of the pattern-band: these should have been given, not the whole vase with the gloomy trollop of the restorer. Pl. 39, 2, I noted the inscriptions as ΗΟΓΑΥΣ, ΚΑΛΟΣ, not ΗΟΓΑΙΣ, ΚΑΛΟΥΣ, see *Vases in Poland*, p. 17. Pl. 39, 10, the mouth of the vase is modern. Pl. 46, 1, peccavi: this is not by the Oreithys painter, but by the Altmann painter, I think. Pl. 51, see *J.H.S.*, 37, p. 236: the brown inner markings are omitted in the published drawing and not mentioned here: the style is not Phintian, but resembles that of the London amphora *Att. Vas.* p. 65, 1-3 and p. 468 bottom. Pl. 54, 4, 'trophy of arms' in a modern sense, not in the ancient: possibly the arms of Achilles.

In this instalment of the Corpus, as in others, many of the references to my writings are inaccurate. Pl. 34, 4, I said not 'style,' but 'school' of the Berlin painter. Pl. 37, 8,

not 'style' but 'school.' Pl. 37, 10; I did not 'connect this with the works of the Nikon painter,' but with a vase which bears the love-name Nikon but is not by the Nikon painter. Pl. 40, 1, not 'group of the Tithonos painter,' but 'by him.' Pl. 40, 3, there is no discrepancy between the two passages. Pl. 41, 4, not group of the Nikon painter, but by him. Pl. 41, 7, attributed not to the Berlin painter, but to his school. Pl. 43, 6 not 'group of the Syllus painter,' but by him. Pl. 47, 6, the same. Pl. 48, 7 not 'workshop' of the Kleophrades painter, but by him. Pl. 53, 1, the same. Many of these modifications are well-meant, but they unintentionally misrepresent me none the less.

I have pointed out many times that the phrase 'Hoppin, same attribution' is incorrect (see Hoppin, *Handbook R.f. Vases*, p. x, and li. p. 345): but it does not lose its popularity.

It is good news that several vases have been cleaned, some before photographing, others after. The photographer is apt to tilt the vase forward so that the shape is sacrificed to the picture: vases should be photographed straight on, and the shoulder-part of the picture be left to a detail-photograph. The collotyping technique is still imperfect: a good many plates have double outline owing to lack of register: this might be remedied in future instalments; and the diagonal arrangement of blocks on the page (III. Ic, Pl. 53), hitherto confined to Compiègne and the Cabinet des Médailles, should be dropped.

J. D. B.

Corpus Vasorum Antiquorum: Great Britain 7 = British Museum 5. By H. B. WATKINS and E. J. FORSYTH. London: British Museum, 1930.

Mr. Forsythe's portion deals with the Mycenaean pottery from the Aegean and mainland Greece, and forms a supplement to his 1928 volume of the London catalogue. Besides the plates, there are a number of good line-blocks in the text. Mr. Watkins is concerned with vases catalogued in 1896 and naturally has much to add.

The museum numbers now appear on the plates, as in the Oxford fascicle: a good move. As one who uses the Corpus a good deal, may I suggest four other small improvements? First, the bibliography should be chronological. Secondly, the description of the vase should include a reference to any detail-photograph given on another plate; for instance, in the text to Pl. 46, "and Pl. 51, 3" should be added after '2a and 2b.' Thirdly, one can say either 'the painter of the Chicago stamnos' in English, or 'the Chicago painter'; but not 'the Chicago stamnos painter.' Fourthly, would it not be fair, among the general books on Attic red-figure, to mention Mr. Pottier's *Catalogue*, rather than Perrot's tenth volume, which is nothing but a garbled version of Mr. Pottier?

Pl. 46, 1, the foot is alien, and ruins the shape. A modern patch in the middle of B. Pl. 46, 2, the inscription omitted. Pl. 47, 2, not assigned by me to the Berlin painter, but called a school-piece in *V.A.*, and in *Att. V.* a school-piece and a poor imitation. Pl. 50, 2, not a Greek pursuing an Amazon, but two fellow-warriors. Pl. 52, 3, 'assigned to the Achilles painter'—but with a proviso (*Att. V.* p. 371). Pl. 54, 1, the inscriptions incomplete. Pl. 56, 1 and Pl. 57, 1, assigned not to the Berlin painter, but to his school. Pl. 58, 1, the painter is called not 'the Deepdene pelike painter,' but 'the Trophy painter.' Pl. 58, 2, the Nolan amphora New York 24. 97. 27 is by the same hand. Pl. 59, 2, the obverse is figured by Schmidt in *Mün. Arch. Studien*, p. 341. The inscription is $\text{L}\nu\text{I}\text{O}\chi\epsilon\text{I}$, complete, which cannot be . . . $\text{I}\text{O}\chi\epsilon\text{I}$; it belong to a class of nonsense inscriptions which I have mentioned in *Vases in Poland*, p. 19. Pl. 63, 1, *J.H.S.*, Pl. 17: close to the Alkimachos painter. Pl. 66, 1, donkey, not mule. Pl. 68, 3, by the same painter as the hydria Naples Stg. 196 and Stg. 243. Pl. 70, 2, two crests shown, not both sides of one. Pl. 70, 3, see also *Att. V.* p. 471, note to p. 121. Pl. 78, 2-4, described as 'more developed in style,' are much earlier than Pl. 75, 1 and Pl. 75, 2, which are called 'ripe archaic,' but cannot be earlier than 450 or 440. Pl. 80, 4, the woman's gesture is directed to the girls, not the youth. Pl. 81, 1, Hauser was right to reject the interpretation as 'Thersites insulting Agamemnon.' Pl. 81, 2, Apollo is not playing his lyre. Pl. 82, 1, see also *R.M.* 27, p. 297.

J. D. B.

Die Munzen von Syrakus. By ERICH BOEHRRINGER. Text 1 vol., pp. vi + 297, with numerous cuts; portfolio of 32 colotype plates. Leipzig: Walter de Gruyter & Co., 1929. 80 M.

Dr. Boehringer's work on the early coins of Syracuse down to the beginning of the period of the signed coins, say 430 B.C. (here the comprehensiveness of his title is somewhat misleading), has been eagerly expected. So far as he could make it so, it is a corpus. The coins are arranged in groups which are generally further divided into sub-sections. The method pursued is the only sound one, because objective, that of observing die couplings. Only when this fails is the subjective criterion of style invoked. The results are most valuable as a chronological scheme for the development of the female head from the archaic to the end of the transitional period. It is doubtless right in placing the earliest coins as far back as c. 530, and in stressing the phenomenal activity of the years 485-470, when the bulk of the archaic tetradrachms of Syracuse now extant appear to have been made. The variable quality of their style and the borrowing of a die from the mint of Leontini, show the demands made on the mint in this period. A close study is made of the Demareteion and the tetradrachm linked with it, and brief sections deal with the technical and economic aspects of the coinage, the types, the development of medallio art at Syracuse and its influence on the outside world. A well-ordered and well-interpreted mass of material.

Staatliche Museen zu Berlin: Die Munzen von Priene. Von HEINRICH DRESSSEL bearbeitet von KURT REGIUNG. Pp. vii + 218: 27 cuts in text and 5 colotype plates. 90 M.

This work, begun in 1899 by Dressel, laid aside, then reworked and completed by the pious hands of his successor, amounts to a corpus of the coins of Priene. It has been objected that Priene is not a sufficiently important city to justify so elaborate and exhaustive a work, but it is a fair answer that we must do what we can—and the various excavations on the site have helped to provide a richer material than is available for more important places. The only objection we would make is to the price, which seems out of all reason to the size of the book. Dr. Regiung, with his careful industry, treats the coinage from every possible point of view, beginning with the celebrated stater of the Ionian revolt with the Athena head in a winged helmet, and going down to Salonina. In addition, lists are given of all coins found during the excavations. One question: R. accepts without hesitation the attribution of the Athena stater to Priene, but is it quite certain that Athena was the chief deity of Priene *before* the restoration of the city in the middle of the fourth century under Athenian auspices and on a different site? If not, the attribution of the stater must also be uncertain.

Die Tyrannis in Athen. By FR. CORNELIUS. Pp. 111. Munich: Ernst Reinhardt, 1929.

Though much has recently been written about the tyranny at Athens, there has been no monograph dealing both exclusively and comprehensively with this momentous subject. This book will be welcome as a serious and largely successful effort to fill the gap.

Brief sections on sources (with a good appreciation of Herodotus) and the vexed question of chronology are followed by an account of the early days of Peisistratus and the party that he organised to secure to himself the tyranny. There are excellent chapters on the material growth of the city and its commercial and industrial developments under the tyrants, their activities in the spheres of social life, art and religion, and an interesting attempt to estimate the characters of both Peisistratus and his sons. Peisistratus is explained as an inspired statesman with a religious conviction of his mission, a view which incidentally rules out some flippant interpretations of the Phye episode and has led Cornelius to offer a new one of his own (pp. 43-4). The final sections treat of the overthrow of the tyranny, the subsequent party groupings, and the legacy that the tyranny left behind it.

The least satisfactory parts of the book are those that deal with Peisistratus' first tyranny, banishment and restoration. Perverted by the heresies of Beloch and De Sanctis as to the dates of Theagenes and Peisander, Dr. Cornelius mistranslates Herodotus (V. 71, p. 36) and puts Cylon's *coup* into the period of Peisistratus' first exile. The archaeological evidence of the Megarean waterworks and Eupalinos' work at Samos are adduced (pp. 36-7) as establishing an absolute date for Theagenes and not a *terminus ante quem*: the way Peisistratus treated his Alcmaeonid wife is, according to Cornelius (p. 36, n. 3), hard to explain unless her father had recently been involved in a particularly shocking murder; but is not this taking rather too rosy a view about both politics and married life?

The section on the composition of the tyrant's party (Hyperakrioi, Diakrioi, or Epakrioi) is also open to some serious criticisms. Cornelius (pp. 16-17) identifies the party with the city plebs and quotes in support of his theory the *ἀσπυρῆς* who formed the tyrant's bodyguard, but these *ἀσπυρῆς* are not townfolk as distinguished from countryfolk (p. 16), but citizens as distinguished from mercenaries: 'τῷ λόγῳ τῶν ὑπερακρίων προστάς' (Hdt. I. 59; Cornelius, p. 16) does not imply that the name was not used in a geographical sense; and the Semacheion in the Laurium mining district (*Ath. Mitt.*, 1910, p. 286; Cornelius, p. 19) does, as Oikonomos at once recognised, make it probable that the Epakrian deme Semachidae was in that district also, unless we follow Cornelius into the region of pure assumption and maintain that there was only one Attic Epakria (p. 18).

But though details in this section certainly need revision, the general treatment marks a distinct advance on the normal modern account which makes Peisistratus base his power on small farmers or shepherds, for whose alleged political activities there is neither positive evidence nor inherent probability; and on this as on other topics the writer gives us the evidence and begs no questions.

P. N. U.

'Ιστορία τῆς Ἑλληνικῆς Δημοσίας Οἰκονομίας, Τόμος Β', Μέρος Α': ἡ δημοσία οἰκονομία τοῦ μεγάλου Ἀλεξάνδρου. By A. M. ANDRÉADÉS. Pp. 104. Athens: Traka, Delagrammatika & Co., 1930.

The second volume of Professor Andréadés' history of ancient Greek Public Economy is to include the Hellenistic period down to the Roman conquest; the book under review is Part I of this volume, and comprises the reign of Alexander. It is divided into two sections; the first deals with Alexander's finances down to the conquest of Persia, that is, the military expenditure and the sources of income; the second and more important section attempts an evaluation of the accounts of his Empire for his last year, 324-3. The discussions are sound and well reasoned, and exhibit the old Greek virtue of moderation; the author, who seems to have read everything, knows how much there is at which we can only guess, and, though the material is all too scanty, he makes what does exist yield up its full value; the only omission I have noticed is that, in discussing the pay of the troops, he (like Berve) has overlooked *I.G.* II.² 329, which gives the pay of the hypaspists. Several times he has occasion to criticise Beloch's figures as being too low, and makes a good case; Beloch's low figures have now done their work (good work it was), and the pendulum can safely swing a little. It is the more strange that in the one case (the amount of the Persian treasure) where I think we must for once take the highest figure possible, because of Alexander's expenditure, he takes a low one. But naturally one finds a few things one does not agree with; I do not think the trierarchy in India had anything to do with finance, but was an attempt by an overworked man to delegate some work; and I doubt Berve's four financial spheres, which Andréadés adopts. But as a rule I find myself in much sympathy with the author's strong common-sense, notably in the second section. The attempt to get at Alexander's yearly income in 324-3 (pp. 47-59), starting from Herodotus' tribute list (which would give 9000 talents), seems to me excellent, and the result, 15,000 talents, which has the support of the known figure for Antigonus, very probable; while the conclusion that expenditure greatly exceeded income in 324-3, and would have done so again in 323-2, whatever view we take of Alexander's 'plans,' may be regarded as certain. Andréadés' deduction is interesting: had Alexander lived, he would have continued to spend, but would

have raised enough income by overhauling taxation and sources of revenue—in fact by anticipating Ptolemy II. Andréadès can, and does, point to Cleomenes as the straw which showed which way the wind would ultimately blow; this might explain Alexander's condonation of his methods. But I suppose he would have had an alternative—to annex the Spanish mines.

The book contains accounts of the chief financial personages of the reign—Harpalus, Antimachus, Cleomenes (good bibliography), and Philoxenus, and closes with the best examination I have seen of Lysimachus' taxes. There is a useful table of contents in French, and I am glad to hear that the whole history is to be translated into English. Andréadès cites several modern Greek studies unknown (I fear) to me, and alludes to the neglect of modern Greek works by Western scholars. But it is not easy to get to know of them. If Greek scholars could more often bring their books to the notice of (say) the editors of *Bursian's Bibliothek* or (in England) *The Year's Work in Classical Studies*, it would, I imagine, be a help to many people.

W. W. T.

Ἁ ὁ οἶκος τῶν Μπενιζέλων καὶ ἡ Ὅσια Φιλοθέη. By JOANNES GENNADIOS. Pp. 96. Athens: Gienakes, 1920.

This is a work of filial piety, for the former Greek Minister in London is the son of a Benizelins and the great-grandson of Joannes Benizelos, the Athenian teacher and historian, who died in 1807. The Benizeloi, about whom Mr. Kampouroglous has published a monograph,¹ were one of the most eminent Athenian families in the Turkish period, and, if the origin of their name is obscure, their fame is not. One of them was the Blessed Philothée, whose stormy career is here described on the basis of 24 contemporary documents. She founded a convent at Athens, to which she gave the name of 'the Parthemon,' and in which she harboured four female runaway slaves. Hierax, the Great Logothete, came to her assistance, and his Athenian visit is still commemorated by the station of Gerakas on the Laurion railway. Her letter to Hierax is a bitter invective against the Athenians past and present. She suffered prison and martyrdom in 1589: her body is preserved in the Cathedral, her profession as a nun in the Attic place-name Kalogralza, and she made the well which still supplies water to the now fashionable suburb of Psýchiko. This learned treatise concludes with sketches of the notable Benizeloi-Angelos, professor at Venice, Athens and Zante; Joannes, one of whose pupils was the famous Oriental scholar, Galanos; Nikolaos, who adorned the monastery of Phaneromeno by his painting; and Prokopios, one of the last *demogorontes* of Turkish Athens, who was imprisoned in 1821 as a hostage in the Frankish tower of the Akropolis. The treatise displays an erudition worthy of the founder of the Gennadeion. It has as frontispiece a portrait of Philothée.

W. M.

Πολιτική Ἱστορία τῆς Νεωτέρας Ἑλλάδος 1821-1920. By GEORGIOS K. ASPERAS. Vol. III, Pt. 1. Pp. viii + 200. Athens, 1930. 100 dr.

The present volume,² of which two instalments were published in the *Hestia* eighteen months ago, covers the period 1890-1912, from the first Theotokas Cabinet to the outbreak of the first Balkan war. It therefore includes the 'Gospel Riots,' the settlement of the Cretan question, the Macedonian conflict, the Military League and the appearance of Mr. Venizelos upon the scene. Given the great difficulty of his task, the author deserves high praise for his rigid impartiality, while he has based his narrative, especially his account of the Military League, upon the most authentic documents, notably the archives of its chief, Zorbas. The only portion where he shows inevitable national sentiment is that about the struggle for Macedonia—a question now settled as far as Greek Macedonia is concerned. There are some interesting character sketches—of Deligiannos, 'most infirm of purpose of all

¹ *J.H.S.* xlii. 127.

² *Ibid.* xliii. 71; xliii. 117.

politicians who ever governed the country,' of Mr. Venizelos in his Cretan days, and of Prince George; and dramatic scenes, such as the sentence upon Mr. Venizelos of imprisonment in Izmeddin, the later prison of Pangalos, and the interviews of the Cretan statesman with the leaders of the Military League and Mavromichales. A century of Greek history, in the judgment of Mr. Asprea, has produced only four political leaders not afraid to take responsibility—Trikoupes, Venizelos, Mavrokordatos and Koumoundouras. He thinks that the translation of the Gospels would have helped Slav propaganda, that Russian support in Crete was due to the desire to give Bulgaria more in Macedonia, and that the collapse of Turkey in 1908 would have ruined Hellenism in the Balkans. He defines Mr. Venizelos' position after the second elections of 1910 as a 'political dictatorship proceeding from the free will of the people.' Little-known incidents are the proposed creation of an autonomous principality of Cyprus under Prince Nicholas in 1900, and the fact that only three Greeks knew of the Greco-Bulgarian negotiations of 1912—the King, the Premier and Mr. Streit. There are a few slips. Abbazia is not in 'Dabnatia' (p. 16); '1888' should be '1828' (p. 56); Somino, not 'Giolitti,' revealed the fact that Austria saved Chios and Mytilene from Italian occupation (p. 178, n. 2). Numerous illustrations, seals and autographs adorn the text of this valuable volume.

W. M.

Εὐρετήριο τῶν μεσαιωνικῶν μνημείων τῆς Ἑλλάδος. Πτ. II. By A. ΧΥΚΟΣ-ΡΟΥΛΟΣ. Pp. 59-122. Athens, 1929.

This second instalment of the illustrated *Index of the Medieval Monuments of Greece*¹ contains the extant and destroyed Byzantine churches, those which date from the Turkish period, and the existing and no longer existing Turkish buildings of Athens. Even after the destruction, which followed the transference of the capital to Athens in 1834, there still survive 55 churches, ranging from the ninth to the nineteenth centuries, conspicuous among them the Kapnikarea, the Panagia Gorgoepekkia and SS. Theodores, while two mosques are still used as a military bakery and a museum of decorative art. The account of each building concludes with a bibliography, in which naturally the works of Mr. Kampouroglou largely figure. Buchon might have been added to the authors who have written about the Gorgoepekkia. The catalogue is well printed, and the pictures of bygone churches and mosques specially interesting.

W. M.

Σύγχρονος Ἱστορία τῶν Ἑλλήνων καὶ τῶν λοιπῶν λαῶν τῆς Ἀνατολῆς ἀπὸ 1821 μέχρι 1921. By P. KAROLIDES. Vol. VII. [1864-1900]. Pp. 495. Athens: Bitzikonakes, 1929.

The seventh volume of this big history² is on a different scale from the sixth, which covered only two years, while the present deals with 36. The history of the Balkan states and the Armenians is lightly touched, while that of the Greeks after the Cretan insurrection of 1866-69 is told with less detail than is the author's custom. A lack of proportion is shown in an appendix of 86 pages devoted to the scientific qualifications of a living Greek astronomer, which is of no historical interest. A valuable characteristic of this volume is the author's personal experience of some of the events narrated; thus he acted as intermediary between Trikoupes and the Patriarch Joachim III and was on intimate terms with 'the greatest statesman who had appeared since the foundation of the Greek state,' as he calls him. But this does not blind him to Trikoupes' defects—his foreign outlook on Greek affairs, his high taxation and his claim to direct Hellenism in Turkey. Nor is the author unjust to Deligiannes, 'the last man to govern in troublous times,' while he admires the energy of Rhallos. A few allusions to present politics might have been omitted, and some account of social and economic progress given, besides the allusion to the financial effects of the Greek emigrants' remittances from America. There is no mention of Frattì and Clement Harris

¹ *J.H.S.* xlviii. 97.

² *Ibid.* xlvii. 132; xlviii. 98.

among the volunteers of 1897: for the mistakes of that war he justly acquits Constantine, as Riontotti Garibaldi also thought. A few slips in the allusions to England need correction. Thus Lord Lyons, our Ambassador in Paris, was not the same as the British Minister to Greece under Otho (p. 123a.), but his son, the father having died in 1858. Frank Noel was not the owner of Achmetaga in 1870, but was managing it for his father; Salisbury was not 'Premier' in 1878; Chamberlain was never a 'Whig'; while the British Liberal members of Parliament who expressed their sympathy with King George I in 1897 were not 'over 300.' The author's strong point is his acquaintance with Turkish and ecclesiastical affairs, and this volume is an interesting contribution to recent Greek political history.

W. M.

Ὁ Χάριλας Τρικούπης καὶ ἡ Ἑνωσις τῆς Ἑπτανήσου. By S. TH. LASKARIS. Pp. 132. Athens, 1930.

The author, a member of a well-known Ionian family, has devoted this treatise to the diplomatic side of the Union, in which, as a diplomatist, he is specially interested. Trikoupes found, on his arrival in London to negotiate with the British Government, that the Powers had already decided upon four points, to which Greece objected, viz. the perpetual neutrality of the Islands, the demolition of the forts of Corfu, the maintenance of the privileges of the Austrian Lloyd and the express tolerance of Roman Catholicism. There was also the question of compensation for British officials. Neutrality was eventually limited to Corfu and Paxos with their dependencies, the demolition of the forts restricted to those erected during the British Protectorate, the Fortezze Vecchia and Nuova thus being saved, and the Austrians agreed to make a new commercial treaty within, at latest, fifteen years. These modifications were largely due to the diplomacy of Greece's future great statesman. An interesting extract from his unpublished papers informs us that the American Philhellene, Everett, wrote to him in 1863 that a Conservative Republic (such as she now has) would be the best form of government for Greece. The book contains portraits of Trikoupes, George I and the Ionian deputies who voted for Union, a facsimile of their vote and Greek versions of the Austrian-Lloyd agreement of 1853, the treaties of 1863 and 1864, and the convention of 1864.

W. M.

I was sent to Athens. By HENRY MORGENTHAU in collaboration with FRENCH STROTHER. Pp. 327. New York: Doubleday, Doran & Co., 1929. \$4.

This book, of which an English edition has been published under the better title of *An International Drama* (Jarrold, 18s.), contains an account of Mr. Morgenthau's work as first president of the Refugees' Settlement Commission at Athens in 1923-24, and of the results up to the summer of 1929. 'Written in part to add to the data available to later historians,' it describes, after a brief historical sketch of events since 1913, the former American Ambassador's action in Greece, where he played so active a part in the making of the Republic as to be called by Mr. Venizelos 'the leader of the extreme Republican Left,' and to be addressed by Mr. Papanastasiou as 'the Father of the Republic.' The reviewer, who was an eye-witness of these events, can vouch for the accuracy of the scene in the Chamber when the Republic was proclaimed amidst a flight of doves; and Mr. Morgenthau 'was treated as a principal in the drama.' The latter part of the book treats of the settlement of the refugees, their employment in posts on the Commission, their achievements in introducing new industries and improving cultivation, the task of surveying Macedonia and Thrace and the successful planting of Australian wheat in Sirocco-swept Chalkidiki. The author urges decentralisation, Byzantium to business. Several slips require correction. The name of General Kondyles is mis-spelt, the Oecumenical Patriarch is styled 'Metropolitan,' the elections of 1923 were held on December 16, Byron died two years before the Sortie, the National Bank is called the 'Bank of Greece'—a different and recent institution; Mr. Karamanlis, 'the Hoover of Greece,' is not 'Minister of Agriculture,' nor is Mr. Bailey

'the pioneer who drained Copais.' But the book is a lively commentary on what the author calls the 'modern epic of the Greek people,' whose gratitude he has gained by his disinterested services.

W. M.

Greece To-day: the Aftermath of the Refugee Impact. By ELIOT GRISNELL MEARS. Pp. xxii + 336. Stanford University, California, 1929. \$5.

The author, who is Professor of Geography and International Trade at Stanford and was formerly American Trade Commissioner in Greece, treats of 'the economic problems,' which, as he justly writes, are 'the great, overshadowing issues in Greece to-day.' After a chronology and two descriptive and historical chapters, he focusses his attention 'upon the years since the World War.' He shows how the currant trade with England and the United States has diminished since then owing to bad packing and competition with Australia and California respectively, whereas the refugees from Smyrna have increased the export of Cretan sultanas. Since he wrote, the difficulty of admitting Greek wines into France has become greater. He mentions the improvement in packing figs effected by the refugees and the creation in 1929 of the Autonomous Office of Carpets to stabilise that new and important industry, also introduced by them. He emphasises the importance of improving the railway communication between Greece and Bulgaria by prolonging the present railway from Petrich to Demir Hissar—a question mainly of gauge, which was discussed at the International Peace Congress of 1929. The cost of living has fallen somewhat since he wrote his chapter on finance, in which he recognises the punctiliousness of Greece 'about paying the interest on her foreign debt in full and on a gold basis.' His remarks on the Church in the 'new' provinces, the Marathon dam and the Amatovali sluice require modification in view of subsequent developments, while the last census has shown that women, who in 1930 received the municipal vote, if literate and over thirty, are not largely in excess of men, but in the proportion of 100 to 98. In a chapter on politics, he pleads, as in a more recent lecture in Athens, for Balkan economic union, and in his forecast of the future he points out the vitality of the Greek people—a fact proved by the whole history of Frankish and Turkish domination. A coloured map, three appendices about the refugees' settlement, and a copious bibliography complete this painstaking and useful work on Greek economics. A few slips deserve correction in a new edition. Miss Stewart Richardson is one not 'two' persons (p. 112) and is not 'American'; 'Kyparissia' (pp. xiii, 123, 153) should be 'Kephissia'; Trikoupes came from Mesolonghi, Koudyles was elected a Thracian deputy. The dispute at the Spetsai school has been satisfactorily settled, and there was a new 'Conference of Balkan churchmen' at Kephissia in 1930.

W. M.

Ὁ Φιλελληνισμὸς ἐν Γερμανίᾳ κατὰ τὴν Ἑλληνικὴν Ἐπανάστασιν. By S. TH. LASKARIS. Pp. ii + 96. Athens, 1930. 5dr.

Following his previous study of *Philhellenism in America during the Greek Revolution*, the author has availed himself of his residence at Berlin as secretary of the Greek Legation, to publish a similar volume on the same phenomenon in Germany. After tracing German interest in Greece from Luther, Wölfer (who made Hellas address the Germans for help in weird Greek hexameters), Crusius, von Wolkenstein, Grimmelshausen, Reitze and, above all, Hölderlin in his *Hyperion*, to Schiller and Goethe, he describes how Krug and Thiersch first raised their voices for the Greeks in 1821, and the great influence of Ludwig I of Bavaria. Ladies wore robes à la Bouboulina, at the carnival people masqueraded as Souliotes. A chapter is devoted to the 377 German volunteers, among them Normann, Dr. Treyber, and the future Regent Heideck, who came to Greece, and of whom 121 died there during the war. Another deals with the Philhellenic societies and their funds, especially that at Stuttgart, of which Ulland was the soul; and the influence of the Greek movement upon German literature is shown in the cases of Wilhelm Müller, Chamisso, Fouqué, Jean Paul Richter and lesser writers, catalogued in an appendix. The book contains two unpublished letters of Ludwig I, and two of the subsequent King Friedrich Wilhelm IV to Capo d'Istria from the Corfiote archives.

W. M.

A Chronology of Cyprus. By SIR RONALD STORES, K.C.M.G., C.B.E., Governor of Cyprus. Pp. ii + 37. Nicosia, 1930. 2s.

This useful compendium traces Cypriot history from the Bronze Age through the Ptolemaic, Roman, Byzantine, Lusignan, Venetian, Turkish and British periods down to 1930, and is a companion to the new edition of Cobham's Bibliography. 'Cyprus,' says the compiler, 'was the first country in the world to have a Christian Governor,' and her history, especially under the Lusignans, which Miss Latrie 'left half-told,' was brilliant and romantic. The chronology comprises social and ecclesiastical, as well as political events, but not even the Archbishopric could provide a complete list of the Autocephalous Archbishops, who sign (like the Governor) in red ink. W. M.

Hellas Revisited. By W. MACGILL DIXON, with illustrations by MARY BRYCE. Pp. xi + 209; pl. 16; 2 maps. London: Edward Arnold, 1929.

Here at last is a book on Greece that one can heartily praise. The author is an enthusiastic and competent traveller who fully appreciates the fact that increased facilities would lessen not only his pleasure but also his ability to reconstruct the past. This reconstruction of the past is the object of his journey, which is well planned to include most of the sites with historical and literary associations. Brief notes from a diary are the pretext for the quotations, discussions and reminiscences appropriate to each place: they are never wearisome, for Professor Dixon has the gift of imparting some of the glamour of what his eye sees and his fancy creates. I like particularly his discourse on the way in which very small cities develop personality and versatility, and his account of the accidented and restless lives which these citizens led: for even if the ideas are not new, they are here expressed in a manner which is always pleasant and often original.

The book would have been still better if Professor Dixon were less exclusively literary and historic. For instance, were he more of an archaeologist, he would have described Sparta differently, and given, besides his picture of the harsh military state with which we are familiar, a glimpse of the art-centre which, in the late seventh and sixth centuries, produced so much that is lovely. Were he more of a mythologist he would not have explained the cults of Demeter and Dionysos as a rationalised triumph of the religious temperament without alluding to the survival of primitive elements, which is, to many scholars, their main feature.

To illustrate a book on Greece either with photographs or by pencil and brush should be easy; yet, oddly enough, no book on Greece has yet been illustrated well. Miss Bryce's drawings from photographs lack distinction, and lack also that which is most characteristic of the country—definition and purity of line. The figures are good, however, and make one regret that she was unable to produce independent sketches on the spot.

In conclusion, I would point out that the field is still open for a book of traveller's tales by one who speaks the language, journeys without a guide, and whose main interest is the country of the present day.

Les religions orientales dans le paganisme romain: quatrième édition. By FRANZ CUMONT. Pp. xvi + 339, with 16 plates and 13 figures. Paris: Paul Geuthner, 1929. 80 fr.

Cumont's *Religions orientales* first appeared in 1906 as a course of lectures followed by notes giving references: this and a second edition were speedily out of print. The work was translated into English, German and Italian, and has exercised great and deserved influence. For the first time the spiritual conquest of the West by the East was set in a superb historical perspective. In this new edition the text of the lectures remains substantially as before, but a new chapter has been added, on the mysteries of Bacchus at Rome, the notes have been thoroughly rewritten, an admirable selection of illustrations (some very hard of access to the student previously) added, and the whole produced in a handsome format.

A reviewer's duty is in this case simply to state that this is a work as valuable to the specialist as to the general reader. To the first it offers a multitude of new and valuable suggestions and an invaluable conspectus of well-arranged material; to the second it gives a lucid and eloquent account of one of the most interesting chapters in the history of man's religious opinions. May we be permitted to express the hope that its author will be spared to produce repeated new editions?

A. D. N.

Pagan Regeneration. By HAROLD WILLOUGHBY. Pp. xi + 307. Chicago University Press, 1929. 13s. 6d.

This is a general survey of ancient mystery religions, which may be useful but which seems to me capable of improvement at many points. For some of these I may refer to my forthcoming review in *J.R.S.* and add that on p. 59 no reference is made to Dieterich's defence and Körte's explanation of ἑρμῶσις in the *Eleusinian symbolon*; on p. 94, 'later Christian notices of Orphism are distinctly secondary to these pagan sources and are chiefly valuable in showing the later persistence of Orphism, and its active competition with Christianity' is true in its first half, but clearly untrue in its second (the Fathers knew the movement from literary sources: if Orphism had been a real live rival, would Orpheus appear in the art of the Catacombs as and when he does?); on p. 109, 'the discovery of the important private Orphism in the recently excavated Villa Irem at Pompeii' is an over-confident statement, to put it mildly; on p. 138, a failure to make use of the valuable paper by Glotz, *Rev. et. gr.*, 1920, on the festival of Adonis; on p. 176 ff., a similar omission of Wilcken's classic discussion of Sarapis in *Urkunden der Ptolemäerzeit* I, Weirich's valuable *Neue Urkunden zur Sarapisreligion*, and J. G. Milne's important article in *Encycl. Rel. Eth.* VI. 374 ff. It perhaps needs to be emphasised that, likely as the political motive (a common worship for Greeks and Egyptians) is for the formation of the cult, its least importance very soon as a result of the Ptolemaic shift of attitude towards the native Egyptian population: the cult remained official, but the government was probably indifferent to the feelings of their subjects at home towards it, and such headway as it made among Egyptians was due to its own inherent merits and to the fact that it had the social cachet of being in a measure Greek and the religion of the royal family, while being at the same time Egyptian enough to be reasonably acceptable.

A. D. N.

Divinità Ignoti: nuovi documenti di arte e di culto funerario nelle colonie greche. By SILVIO FERRI. Pp. viii + 147; 44 plates and 49 figures in the text. Florence: Vallecchi, 1929/VII.

This very handsome and well-printed book is not easy to review, owing to the mixture of good and bad in it. The author reproduces a large number of pieces of sculpture, mostly from tombs, whereof many seem not to have been published before. As the reproductions are excellent, this at all events is a service for which we may thank him and his printers, the more so as he has selected very curious and puzzling examples, badly in need of elucidation. But of the value of his attempts to explain them the reviewer feels very doubtful, classing himself indeed among the *instabili scettici* whom Ferri foresees (p. 53).

He begins with a series of tomb-figures from Kyrene. Some of them are women, or goddesses, with veil and polos, or veil alone, and faces, where the artist has been skilful enough to give the expression, grave and sad. But others, while showing polos, veil and hair, have no face at all, and nothing that a face could have been carved or painted upon, but a round pillar-like surface where the face should be. To make the matter still more puzzling, these female figures, as their hair and dress show them all to be, stood beside monuments many of which bore the names of men. Therefore, whatever else they are, they are not attempts at portrait-statues.

What induced the people of Kyrene to set up these curious images, the reviewer frankly admits that he does not know; it certainly was no inability to carve the human face. That the grave-stele may have had something to do with the columnar form is a reasonable hypothesis, and thus far the author, who makes that conjecture, is very likely right. But

when he goes on to explain the sex of the statues by supposing that the soul of the deceased invariably became a Gorgon, an Erinyes, or 'a Demeter,' far more evidence is wanted than he finds, or than can at present be found, to make the theory reasonably plausible. Forri bases his argument on the supposition that the ghost, the *kyō* of the dead, is thought of as somehow living in the stela or the statue. This is not impossible in the sense of contradicting known facts about eschatological beliefs at Kyrene; but the evidence he adduces for it is of the thinnest, and a more obvious solution is that the mysterious figures are goddesses—Demeter, Persephone, or some local deity—watching over the tomb and its occupant. Similar arguments make against the acceptance of a number of other conjectures put forward to explain details in the construction of other figures adduced; the reviewer has a strong suspicion that a manufacturer of similar modern figures could give a better explanation of some of these on purely technical grounds.

The last section of the book is rather less controversial, dealing with the reconstruction and explanation of a group of Lokrian provenances. Right or wrong, it involves discussing some interesting pieces of sculpture.

H. J. R.

Theophrastos' Charakter der Deisidaimonia als Religionsgeschichtliche Urkunde. Von HENDRIK BOLKESTEIN. Pp. 81. Giessen: Töpelmann, 1929.

This is Vol. XXI, No. 2, of that well-known and admirable series, *RGVF*. The author is the teacher of Dr. P. J. Koets, whose careful study of the word *deisidaimonia* was noticed in the *Journal*, vol. xlix, p. 301. He agrees with his pupil's conclusions as to its significance, and interprets Theophrastos accordingly. The *deisidaimon* is not, in our sense, a superstitious man, with his head full of the old wives' tales which his neighbours have outgrown. Rather is he a timid pietist, not so unlike those whose scruples troubled the Church at Corinth in St. Paul's time, to say nothing of later ages. He does nothing which a normal Greek might not do on occasion; but he does everything in a foolishly excessive way. Anyone might have himself or his house purified, after a funeral for example; he is perpetually having his house put through a spiritual spring-cleaning, and goes every month to the 'Opsestateron' to be purged (not initiated, for that can be done but once; Prof. Bolkestein has some good remarks on this topic, p. 51 *seq.*). Anyone would agree that a serpent, a bird, even a mouse, might now and then give omens which it would be wise to attend to; the *deisidaimon* is frightened out of his small wits if a mouse gnaws his meal-sack, and, not content with the common-sense advice of the State clergy to go and have it mended, seeks out a dissenting diviner who will provide something more exciting. Every snake he sees is a god; if he frightens an owl he must needs shout after it 'Αθήνη κρείττω (i.e. 'you may be ill-omened, but your mistress Athena is stronger than you, and will protect me, a citizen of her own city'; Bolkestein, like Jebb, seems to me to miss the point of the comparative). And so throughout the interesting list of the doings of this tender-conscience brother.

On minor points the reviewer congratulates the author on having unravelled the quaint confusion of thought underlying the second explanation given by the scholiast on Ar., *Nubes* 170, but cannot agree with him when he supposes (p. 48) that the *θεοὶ πατρώοι* may be ancestral ghosts. This is a survival of the ghost-theory which should be left to rest with Herbert Spencer, and goes against the classical Greek distinction between gods and spirits of the dead.

H. J. R.

Speculum Religionis; being Essays and Studies in Religion and Literature from Plato to von Hügel . . . presented by Members of the Staff of University College, Southampton, to their president, Claude G. Montefiore. Pp. viii + 216. Oxford: Clarendon Press, 1929. 21s.

That the colleagues of so sympathetic a personality as Dr. Claude Montefiore should have been moved to honour him in this fashion, *annis septuaginta tua feliciter completis*, as the Latin dedication has it, will surprise nobody. That the essays are interesting and well-informed, making up a most creditable *Festschrift*, causes the reviewer to regret that most

of them cannot be considered here; since this *Journal* is not the place to review Professor Burkitt's appreciation of Montefiore himself, Professor Sherriffs' study of the entomology of the Bible, Dr. Lawton's capital account of Gallo-Roman religion, which may be commended to Celtic and Latin scholars alike, nor the studies of various notable personalities ranging from Byrhtferth of Ramsay to Baron von Hügel.

Mr. Dyson's essay on *Orphism and the Platonic Philosophy* is the only Greek item, and it is well worth reading. The author is far from claiming finality for anything that he says, for, as he rightly remarks (p. 48), 'until . . . critical opinion on the date of the surviving Orphic fragments, and the form of the Orphic works which Plato read, has become more unanimous, until, moreover, the main lines of the development of Plato's thought have been elucidated from other angles, the debt of Plato to Orphism cannot be estimated.' But if he, and others of equally good learning and powers of reasoning, continue to study the problem, that time may not be so very far off. His chief suggestions are, firstly, that to Plato Orphism was primarily a literature, not in any sense a sect or religious body; he need not even have met with any Orphics; secondly, that the curious mythology of Orphism, with its wealth of abstract, or abstracted, deities, may have had more than a little to do with the shaping of the Theory of Ideas. A minor point, so far as Mr. Dyson's argument is concerned, but of importance for the question as a whole, is that, as he quite rightly states (p. 21, n. 3), there is really no evidence that the indulgence-mongers of *Rep.* 364 B are Orphics at all; for their appeal to books which they say Orpheus and Musaeus wrote need prove no more than what we know from other sources, that Orpheus was commonly considered 'as general founder of Mysteries' and 'had had fathered on to him many religious poems.'

H. J. R.

Geschichte der griechischen Literatur. By WILHELM SCHMID und OTTO STRÄHLIN. Erster Teil. Erster Band: Die griechische Literatur vor der Attischen Hegemonie. By WILHELM SCHMID. Pp. xiv + 805. Munich: C. H. Beck, 1929. 40 M. unbound, 45 M. bound.

A detailed review of a book of this order would require not only the compass of an essay but also a knowledge of Greek literature equal to that of Schmid himself—a knowledge to which the reviewer can make no claim. A mere catalogue of minor defects would be ungenerous and impertinent. It could hardly be expected that such a book would be entirely free from mis-statements, misprints and false references; and although examples of all could be quoted, considering the size and scope of the book they seem to be remarkably few.

The first volume of a history of Greek literature deals of necessity with much that is controversial. About Greek literature before Homer it may almost be said that every scholar has a right to his own opinion. Schmid's would probably be as difficult to disprove as to prove, and the pages which he devotes to it do conveniently call attention to the kind of literature that may have been behind Homer. Epic naturally occupies a considerable part of the volume (pp. 74–324). The evidence for and against the principal views that have been taken about the Homeric poems is given with admirable fairness and restraint. Schmid's own opinion is that the *Iliad* and the *Odyssey*, though each is the work of a single poet, do not come from the same hand. Whether one agrees or disagrees with his conclusions, one must admit that he has set out the evidence without bias and in such a way as to allow his readers to check his judgment and to form their own. But his treatment of Epic does not end with Homer or even with Hesiod; what constitutes one of the chief values of such a book is that it can include the obscure lesser writers about whom less comprehensive works can necessarily give little or no information.

Lyric, like Epic, belongs in the main to the period covered by this volume, and, like Epic, it is very thoroughly examined (pp. 325–628). The origins and development of each of the literary forms classed as lyric are carefully analysed, and the individual poets receive discerning but sympathetic treatment. Here again readers will perhaps be relatively more thankful for the little that they are told about less well-known poets and poetesses than for the detailed account of Pindar, about whom it is comparatively easy to acquire

information. But Pindar had to be treated at length, and the evidence both ancient and modern for our knowledge of the poet and his work and influence could hardly have been more fully or more satisfactorily collected than has been done by Schmid.

Tragedy, except for a passing reference to its origins, does not come within the scope of this volume: there is, however, a short but illuminating account of the origin of Comedy and the Mime (pp. 629-59). But the third and last main topic is Early Prose (pp. 659-775). Prose is treated under various headings—*Pseudichtung*, History, Philosophy, Science—and in each case a remarkable amount of information is given about matters for which evidence is scarce and not easily accessible. Thus the section on Prose forms one of the most useful parts of the volume.

In short, Schmid has given us a book of which German scholarship may be proud and for which all scholars must be grateful. It is well constructed, extremely well documented and furnished with a full and accurate alphabetical index; and although it is essentially a book to be referred to rather than to be read through, it does not suffer from the disability so common in text-books, but is eminently readable.

R. M. R.

Le Cycle Épique dans l'école d'Aristarque. By ALBERT SEVKREYS. Pp. xvi + 428. *Laège*: Vaillant-Carmanne, and Paris: E. Champion, 1928.

De Hymnorum Homericonum memoria. By P. S. BRUXINSO. Pp. 130, 3 plates. Trajecti ad Rhenum: A. Oosthoek, 1929.

These two doctoral dissertations deal, at considerable length, with well-worn subjects, on which it was not to be hoped that they would discover much novelty. Until papyrus restores to us the Cycle or the Hymns, no such expectation would be justified. However, the future editors of the two bodies of literature will take account of the results of these two theses.

T. W. A.

Hellenistic Poetry: By ALFRED KOERTE; translated by JACOB HAMMER and MOSES HADAS. Pp. xix + 446. New York: Columbia University Press, 201s.

Theocritus and the epigrams of Callimachus are still for the English amateur of Greek literature the whole canon of Hellenistic poetry. The rediscovery of Menander has been written down a disappointment, and Apollonius is more praised than read. But the age has long had a bad name, and the reader of poetry has received little encouragement to look further afield for flowers in this desert air. The scholarly labours expended on the Alexandrine writers have for the most part been highly technical, and in English there has not yet appeared any general detailed survey of these poets and their work. This American translation of Professor Koerte's *Hellenistic Poetry* deserves all the more to find many readers, and it will not disappoint them; but it is not a book for the scholar or a mine for the deep student, it is a scholarly guide for the general reader of poetry and for the unprofessional Hellenist. The translation is very readable and the Americanisms are hardly noticeable; but 'the island Cos' (p. 284, etc.) is not English on either side of the Atlantic. Mr. Koerte's occasional allusions to German poetry might perhaps have been omitted; they are of small value in illustration for the English reader.

The book begins with a short general introduction of Hellenism, in which the author apologises more than is necessary for his chosen poets, and puts down their conceits and extravagances of style to the rise of a narrow but cultivated literary society. After this Mr. Koerte divides his material into the main classes of poetic form—new comedy, elegy, epic, mime, epigram—and in each class criticises and expounds the poets in a chronological sequence. He quotes copiously, an admirable practice; but in translation, and with quite insufficient reference to the original texts; and many of the versions, although taken from standard English publications, are worthless either as poetry or translation.

New comedy is Menander; he has lately been decried, at least in England, because he avoided the riotousness of Aristophanes, and at the same time because the habits and morals of his characters are unelevating. This is, as it were, to attack Molière for not imitating Rabelais, and in the same breath to condemn *The Way of the World* because it is

unelifying. Mr. Koerte's eulogy of Menander is all the better because it admits his limitations. He explains clearly Menander's debt to Euripides (whose one worthy pupil he was), and also the debt of all civilised comedy to Menander. He tries to make clear that it is as an artist, a technician, that Menander can be ranked highest, but the doggerel translations quoted in this edition make this sound argument seem nonsensical.

The second chapter brings us to Alexandria and to Callimachus. Callimachus, a little surprisingly, dominates the book. Mr. Koerte's advocacy is convincing, and he succeeds in bringing to life this learned, polished, witty, human poet who has too long seemed a pedantic, though charming, versifier. The excellent Augustan couplets of H. W. Tytler's translations, and Mair's beautiful prose version of the *Idia* help to justify Mr. Koerte's attitude for the reader. In difficulties of interpretation the author is content to refer to the opinions of Wilamowitz; as he does not discuss the interpretations chosen there is no need to do so here. From the elegy through the epyllion—where Callimachus again is prominent, but Theocritus hardly receives his due—we pass to the epic. The *Argonautica* is analysed in detail, but no serious attempt is made to defend the shapeless thing. Apollonius has lately been much praised in England; the present estimate is soberer and truer. A brief, competent section on the didactic poets leads to the drama and Lycophron's *Alexandra*. This is ably discussed and its merits made clear; we are shown that there were reasons of fashion for its composition—but why read it? and why translate it? Lord Royston's version (London, 1838), used here, makes it too easy, but Lycophron must be easier in England than in Germany, for we are brought up on Milton and have readily assimilated 'Now lies the earth all Danaë to the stars,'—though this admittedly is but elementary Alexandrianism.

The long chapter on *Mime* is thorough, but Mr. Koerte's judgment is less sure here. The general excellences of Theocritus he understands well enough, but finds fault with several particular effects or manners of style which the traditions of English poetry unconsciously explain and justify for us. Of Herondas, too, the exposition is better than the criticism.

The final chapter, on Epigram, is the least successful. Mr. Koerte is here inclined to moralise, and poetry has slipped away in his detailed analysis of themes and fashions; but he praises Callimachus duly. He quotes, too, the more historically interesting, not the best epigrams (though the best are not only the best known). Here once more the English translations fail, but the Greek epigram has always been the most difficult flower to transplant.

As a general survey the book is excellently balanced, and Mr. Koerte provides the encouragement which is certainly needed before reading Hellenistic poetry.

W. R. LE F.

Βόλτες Ὀνοματολογικῆς. First Series. By J. ΣΤΑΜΠΟΥΛΟΣ. Pp. 328. Athens, 1929.

These 'name-turns' are at once fascinating and provoking. The book is divided into two parts, the first not inaptly described as a 'brisk walk through various names.' The families visited are scattered about without any attempt at alphabetical or other order. The second part is more methodical, and deals with family names classified according to termination, and also with various compound names. Here again an alphabetical arrangement within the classes would have been of help. In both parts there is a great wealth of material, and this will furnish rival philologists, who are not over-tenderly dealt with by the author, with a varied armoury of weapons for retaliation. There is nothing of slavish imitation in these etymologies; the obvious and popular explanation is usually summarily rejected. A Latin, Romance or other foreign baptismal name is generally assigned as the source. Thus *Φήγες* is from *Arrigo*, *Πάλλης* from *Paolo*, *Καλλίμωγος* from *Gallo*, *Καταλάνας* from *Catto*. Great ingenuity is displayed in these derivations, and it is fair to add that the author admits that much is conjectural.

Great credit must be given to Mr. Stamopoulos for the number of examples he has collected, but the lack of an index is severely felt. Perhaps this will be rectified when the promised second series appears.

The Erotokritos. By JOHN MAVROGORDATO, with an Introduction by STEPHEN GASELLE. Pp. vii + 61. Oxford University Press, 1929.

In the 1928 volume of the *Journal* a brief notice was given of the late Dr. Xanthoudides' 'small edition' of the Greek text of the *Erotokritos*. The desire was there expressed that this great poem should become better known to English readers. Mr. Mavrogordato's little work goes a long way towards helping this desire to be realised. It gives all the aids required for an intelligent appreciation of the poem, including a history of the text and the various printed editions, a full analysis, a discussion of the authorship and sources, and a bibliography.

Besides collecting the known information and presenting it in a handy and attractive form, and giving a full and readable analysis of the work, Mr. Mavrogordato makes two important suggestions which merit the attention of scholars. On p. 23 he suggests that the date of the poem falls shortly after 1645, the date of the sailing of the Turkish fleet from Navarino against Crete, when the Venetians 'attempted to divert the enemy by making raids on Patras and Koron.' This would account for the peculiar hostility shown by the poet against Patras, Modon and Koron, as well as against the Turks in general. The suggestion thus supports on fresh grounds the dating (1646-1669) arrived at by Dr. Xanthoudides, mainly as the result of linguistic evidence. The other suggestion (pp. 55 ff.), which will perhaps be regarded as less probable, is that Kornaros derived the idea of his story from Luigi Groto's pre-Shakespearian version of *Romeo and Juliet* (in his *Hadriana*, 1578). In any case it is a fact that Kornaros' poem, so dramatic in character, does present several parallels to Shakespeare's *Romeo and Juliet*. In connexion with this dramatic character of the *Erotokritos*, it may be noted that Mr. Th. Syvadinos has recently published a dramatised version of the poem, which is said to have been performed with considerable success at Athens. It is also interesting to learn that it is proposed to erect a monument in honour of Kornaros at Sitia in Eastern Crete, the poet's birthplace.

F. H. M.

Aristotelis Politica. Editio O. IMMISCH. Pp. xlv + 347. Leipzig: B. G. Teubner, 1929. 8 M.

Plutarchi Moralia. Vol. III. Ediderunt W. R. PATON, M. PORLESZ, W. SIEVERING. Pp. xxxiv + 542. Leipzig: B. G. Teubner, 1929. 16.60 M.

This second edition of Immisch's revision of Susseml's 'Politica' differs little from the first. The introduction deals with the transmission of the text both in MSS. and printed editions, an appendix collects the scholia, and there is a rather unsatisfactory index of proper names and 'memorabilia quaedam.'

Students of Plutarch, long dissatisfied with Bernardakis, will be grateful for the new edition inaugurated by this volume. They will also regret that Paton did not live to see its publication. The introduction examines the text-tradition of each treatise, and the *apparatus criticus* is very full.

Theophrastus: Metaphysics. With translation, commentary and introduction by W. D. ROSS and F. H. FOWES. Pp. xxxi + 87. Oxford: Clarendon Press, 1929. 7s. 6d.

This short treatise (comprised in only 19 small pages of text) contrives to ask most of the fundamental questions involved in Aristotelian metaphysics, leaving them, however, for the most part to answer themselves. Its disjointed and inconclusive character led Usener to suspect dislocations and conflations; these, however, Mr. Ross rejects, as he also rejects any aspersions upon the Theophrastean authorship of the treatise. The commentary is of the thoroughness we expect from Mr. Ross, who has edited the text on the basis of Mr. Fowes' elaborate researches into the MS.-tradition. The volume is equipped with full indexes, and will clearly long remain the standard edition of the 'Metaphysical Fragment.'

Les Cultes de Patras. By JULIA HERBILLON. Pp. xvi + 183. Baltimore: Johns Hopkins Press; London: Humphrey Milford, 1929. 13s. 6d.

The position of Patras (ancient *Patrae*) marked it out to be a centre of commerce between the eastern and western parts of the Greek world, and, in the aphoristic words of M. Herbillon, 'les cultes voyagent avec les ballots de marchandises.' The religious life of this Arcadian port would accordingly be expected to exhibit unusual variety, and, though literary sources apart from Pausanias are practically non-existent and inscriptions few, the author has been able, with the help of coins and by a careful examination of each of the sanctuaries located on Patraean soil, abundantly to prove his thesis that 'Patras est un observatoire excellent pour l'étude des religions de la Grèce antique.' An appendix provides Greek and Roman prosopographies of Patras.

Essays and Addresses. By JOURN BEUXET. Pp. 299, with a portrait. London: Chatto and Windus, 1929. 15s.

All the material of this volume has been published before, but, if only because some of the pieces are not otherwise readily accessible, the collection is assured of a welcome. Two subjects in the main are represented—Greek philosophy, and Education. It is unnecessary to do more than point out the scope of the philosophical group: it includes the British Academy lectures on Socrates and Aristotle and the chapter on Philosophy in the 'Legacy of Greece.' But we may be allowed to indicate the quality of the educational essays by suggesting that they may well be thought to exhibit even more effectively than the others the power of trenchant criticism which was probably Burnet's most striking faculty: the essays on 'Form and Matter in Classical Teaching' and on 'Kultur' and the Romanesque lecture on 'Ignorance' are fine examples of penetrating analysis. The biography by Lord Charnwood is helpful, but tantalisingly brief. (It may now be supplemented by the obituary notices written by Professor Taylor and Mr. Lorimer for the British Academy.)

Symbola in Novam Eunapii Vitarum Editionem. By J. C. VOLLEBERT. Pp. 141. Amsterdam: H. J. Paris, 1929. 5s. 3d.

An investigation into the textual tradition of the *Lives* confirms the pre-eminent authority of the Laurentian MS. There follow 89 pages of critical notes and a brief discussion of Eunapius' use of clauses.

Byzantinische Geschichtschreiber und Chronisten. By G. SOYKE. Pp. viii + 64. Heidelberg: Carl Winter, 1929. 2.50 M.

A collection of thirty-five passages in Greek on Byzantine history and culture (325-1453), edited with brief notes, textual and exegetical, and preceded by a careful introduction to the bibliography of the subject.

The Dolphin in the Literature and Art of Greece and Rome. By E. H. STEINER. Pp. 135. Wisconsin: G. Banta, 1929. 6s. 6d.

After an introductory chapter on the dolphin in nature as described by ancient writers on zoology, particularly Aristotle, Pliny and Aelian, the author proceeds to trace the history of its representation in art, aiming at completeness for the Minoan, the Helladic and Cycladic, and the Geometric periods, but necessarily resorting to selection in dealing with the classical periods: the selection is made on the principle of taking examples from museums or publications readily accessible—a fact which, it is hoped, will excuse the absence of illustrations. The work also includes a collection of references to the dolphin in Greek and Latin authors.

Sobria Ebrietas. By HANS LEWY. Pp. 175. Gießen: Alfred Töpelmann, 1929. 12 M.

The striking oxymoron, *σὸν ἐνθάδε*, makes its first appearance in Philo, in whose conception of the mystical experience it plays an important part, as Mr. Lewy shows by a

detailed study of the numerous passages in which the idea occurs. Though doubtless suggested by Plato's *αἰθεράν νεκρός* and the *ζώνον αἴθη* said by Plutarch to characterise the Dionysiac mysteries, it takes its peculiar significance from the Green-Oriental Gnosticism of which Philo is one of our earliest exponents. The paradox was largely adopted by the early Christian writers: Mr. Lewy studies its use by Origen, Eusebius and Gregory of Nyssa, by Cyprian, Ambrosius and Augustine.

Kosmos und Sympathie. By K. REINHARDT. Pp. viii + 419. Munich: Beck, 1926. 20 M.

Mr. Reinhardt's rehabilitation of Posidonius proceeds apace. This second volume is chiefly concerned with the doctrine of *συμπάθεια*, in which the author finds the main link between Stoicism and Neoplatonism. An appendix contains supplementary notes on *Providentia* as well as on the present treatise, and an index is provided—an amenity denied to readers of the earlier volume.

Thucydides and the Science of History. By C. N. COCHRANE. Pp. 180. Oxford University Press, 1929. 40s.

The object of this work is to prove that the scientific bent of mind which characterises Thucydides was derived from the medical school of Hippocrates. To this end it collects the points of resemblance between the historian and the physician.

This likeness, as Prof. Cochrane shows, is not confined to matters of vocabulary (and of verbal expression (as in Thucydides' use of *νόστος* to denote an exciting cause, and of correct medical jargon in describing the plague), but extends to the sphere of thought. Negatively, Thucydides was a Hippocratean in that he abstained from propaganda and cast out mythology and religion as irrelevant to science. Positively, he transferred to history the distinctive Hippocratic processes of somatology and prognosis, i.e. of registering observed facts and classifying them according to type. Further, Thucydides shared the truly scientific opinion of Hippocrates that human personality is a real factor in life: for instance, he was careful to show that wars are the result of human purpose, and that their chief importance lies in their psychological effect.

Prof. Cochrane has done good service in drawing attention to the undeniable affinity between Thucydides and the 'father of medicine.' Perhaps he underrates the concurrent influence of Hecataeus, Herodotus and the sophists, whose rationalism, if incomplete, may none the less have contributed to form Thucydides' scientific method, and of the Attic dramatists, who put human personality in the very centre of their interest. But it may be conceded that Thucydides' contacts with Hippocrates were more numerous and more fundamental than with his other teachers.

In holding up Thucydides as the type of a scientific historian, Prof. Cochrane does not thereby commit himself to the view that he was a cynic with no sense of values. On the other hand, he is at pains to show that Thucydides was a didactic historian, and that he was guided by broad utilitarian principles of morality. At this point Prof. Cochrane appears to overstate his case. He contends that Thucydides' painted eulogy of Themistocles and Pericles was intended to convey the moral of Greek union in the face of the Persian peril, although Themistocles' anti-Persian fervour soon froze, and Pericles' was never more than lukewarm. Behind Thucydides' account of Balkan warfare he detects a warning of future danger from the North. Yet Thucydides goes out of his way to belittle Herodotus' estimate of the Thracians; he shows up Pericles as a very feeble sort of intriguer; and through the mouth of Brasidas he depreciates the northerners as being more alarming than dangerous. Again, Prof. Cochrane hardly succeeds in showing that Thucydides' reference to the *νενομισμένη ἀρετή* of Nicias meant no more than that Nicias was a good man, because 'to a man of science . . . the normal is the right.' In this case, instead of condemning Nicias' addiction to divination, Thucydides should have approved of it, for in fifth-century Athens this pseudo-science was *νενομισμένη*. And it is difficult to find anything but a Machiavellian standpoint in Thucydides' praise of Antiphon, whose *ἀρετή* was no more than a knack of fitting means to ends. Yet in the main we must agree with Prof. Cochrane

that Thucydides had a sharp eye for the distinction between good and bad. There is no explaining away the moral glow that illuminates the Funeral Speech; and in Prof. Cochrane's thesis nothing is more effective than his defence of the Periclean and Thucydidean ideal of a patriotic democracy against Plato's Model Gaol.

Prof. Cochrane's book makes stiff reading. His style is philosophic in its involution rather than scientific in its directness, and the thread of his argument is overlaid with many digressions. But it will repay study: even where it is not convincing, it has the Thucydidean quality of provoking thought.

M. C.

Verfassungsgeschichte von Syrakus. By W. HÜTTL. Pp. 161. Prag: German Society of Sciences and Arts for the Czecho-Slovak Republic, 1929.

In view of the part played by Syracuse in ancient political history, we know astonishingly little of its machinery of government. Not only are authors reticent on this subject, but inscriptions leave us in the lurch. Dr. Hüttel has made a diligent search for such sparse records as survive, and has eked these out in a quite legitimate way by adducing constitutional inscriptions from the daughter- or sister-states of Acrae, Corcyra, and Black Corcyra; and the result is a recognisable skeleton of a Συρακοσιαν Πολιτεία. The most valuable part of his work is relative to the lawgiver Diocles, whose historical character and traditional date he successfully defends. (Curiously enough, Dr. Hüttel plays with the idea that Archias, the founder of Syracuse, was an alias of Apollo Archegetes, despite the comparative wealth of personal detail which tradition preserved concerning this oecist.) On the subject of King Hiero's revenue law Dr. Hüttel was unable to consult Rostovtzeff's *Kolonat* and Carcopino's *Loi de Hiéron*, and has therefore not discussed it at length.

A few observations of detail.—(P. 25) Dr. Hüttel uses the figures for Diocrates' army in 300 B.C. to estimate the population of Syracuse. But Diocrates was προστάντης τῆς κοινῆς ἐλευθερίας, and his *timigritai* were probably drawn from a variety of cities. (P. 28) As evidence of an early Phoenician factory at Syracuse he quotes the *τεμπλοκροία* at the spring of Cyane as of 'thoroughly oriental character.' But was it *specifically* oriental? At best, this testimony for a pre-Hellenic settlement is inferior to that of the Minoan pottery in Syracusan tombs, which here receives no mention. (P. 72 and n.) Dr. Hüttel makes a good point in proving the existence of a second and more exclusive ἐκκλησία at Syracuse, the so-called ἐκκλησία. But is this an archaism, or is it not rather a new institution of the Roman period? The parallel inscription which he quotes from Rhegium belongs to the first century. (P. 105) The over-striking of Syracusan drachmas with a didrachma mark by Dionysius would not have the effect of a forced loan, except in the unlikely event of a corresponding fall of prices: it would be tantamount to a permanent confiscation of capital. The statement that none of Dionysius' tin-plated pieces survives is not beyond doubt (see Hill, *Coins of Ancient Sicily*, pp. 115-16).

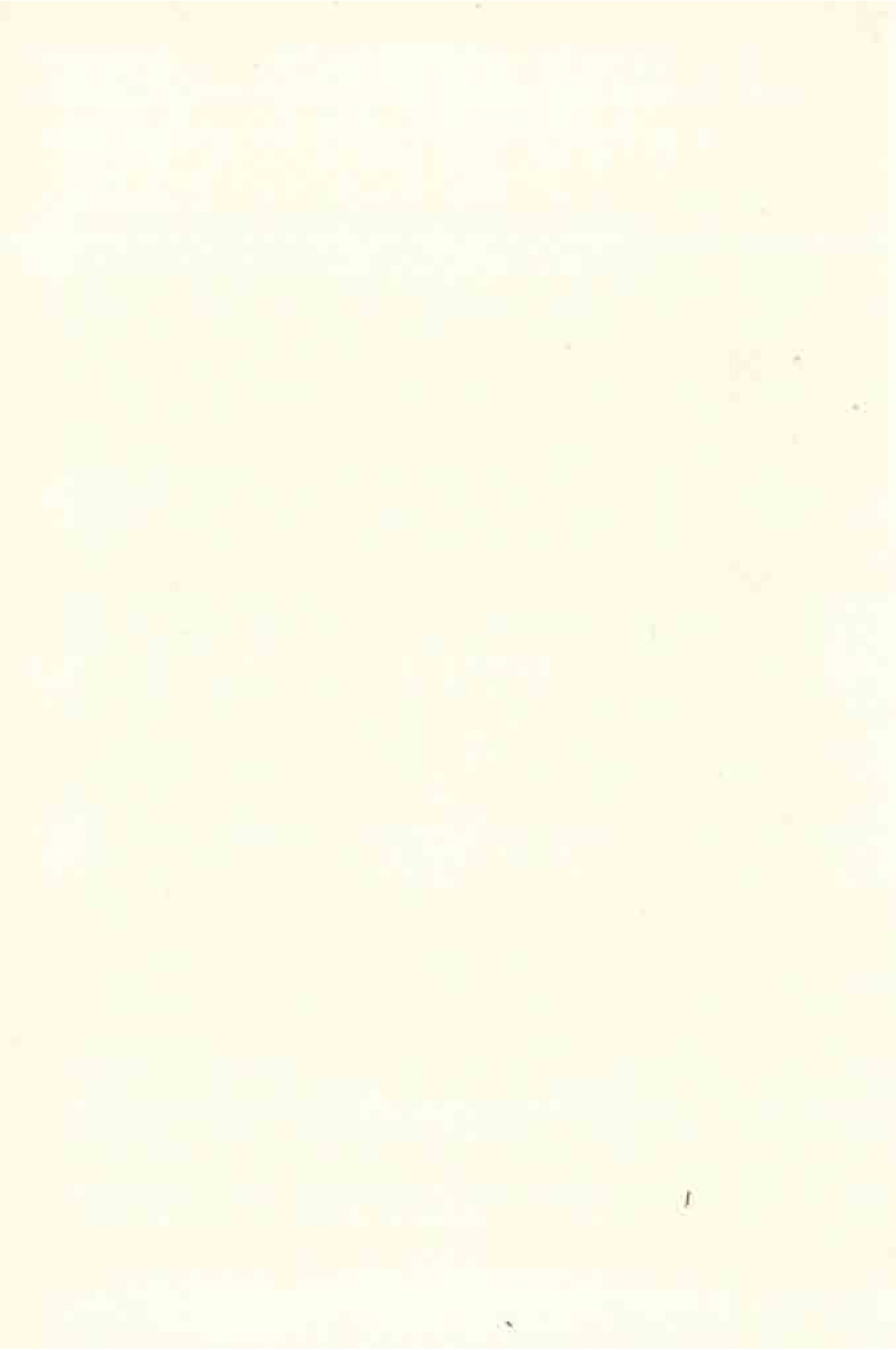
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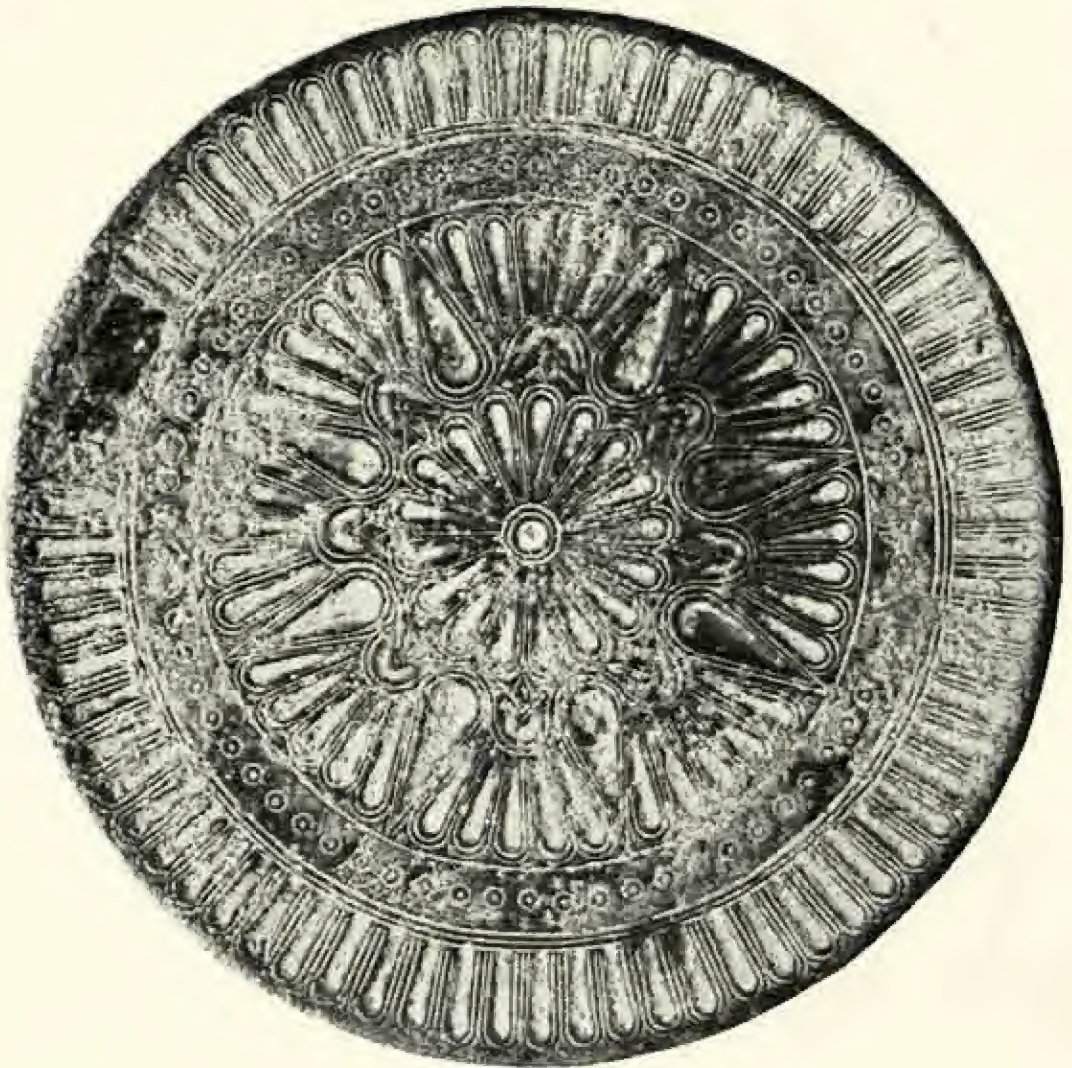
Bitons Bau von Belagerungsmaschinen und Geschützen. By A. REHM and E. SCHRAMM. (Abhandlungen der bayerischen Akademie der Wissenschaften, Philosophisch-historische Abteilung, Neue Folge, 2; 1929.) Pp. 28; 5 pls. Munich: R. Oldenburg, 1929. 6 M.

The above work contains a Greek and a German text of Biton's Κορρασκεναὶ πολιορκικῶν, Ὀργάνων καὶ Καταπαλτῶν, together with photographs of the MS. illustrations, and modern reconstructions. The engines thus described and depicted include a helepolis, a swing-bridge for sealing parties, and several high-calibre cross-bows for the delivery of arrows and stones. Biton wrote no more intelligibly than do most modern technicians, and his text is both corrupt and incomplete. To follow out his meaning and to reproduce his machines in diagrams is therefore a far more difficult achievement than a mere glance at this slight volume might suggest. At best a reader of the Κορρασκεναὶ must be prepared for some strenuous study; but his task has been enormously simplified by the labours of Profs. Rehm and Schramm.



THE BATTLE OF LEPANTO.





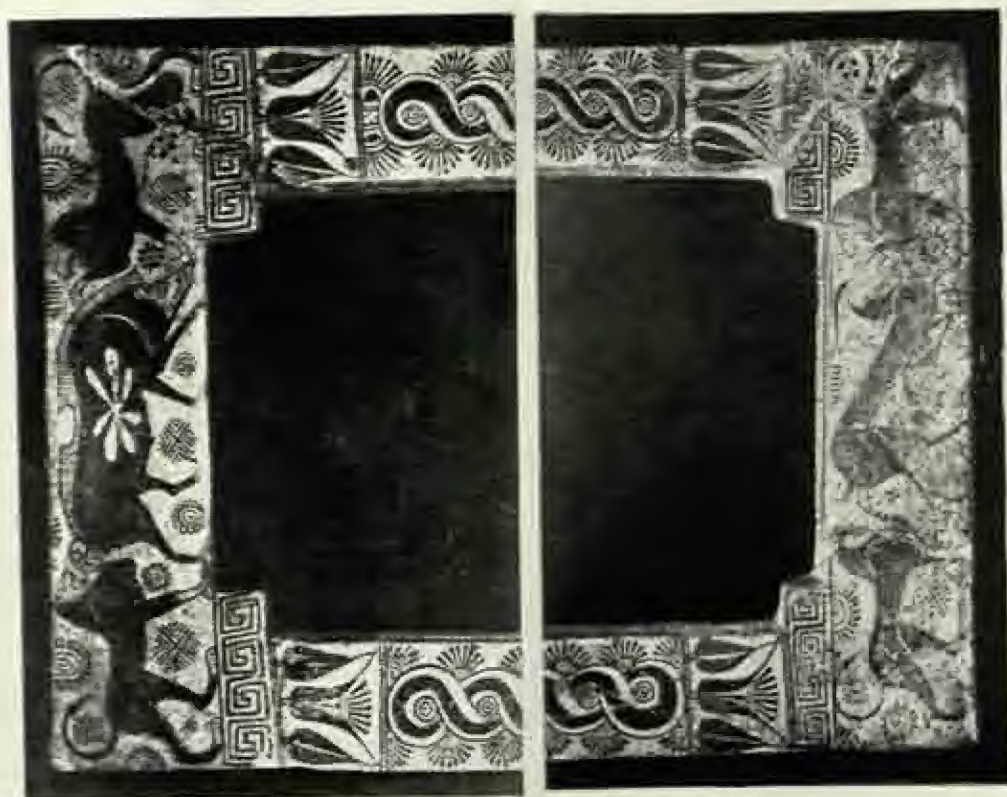
GREEK MIRROR AT OXFORD.



CLAZOMENIAN SARCOPHAGUS AT OXFORD.



A.—STOCKHOLM



B.—ATHENS

CLAZOMENIAN SARCOPHAGI.



(a) "ANTIOPE" FROM ERETRIA;
CHALCIS.



(b) ATHENIAN GRAVESTONE.
BERLIN 1531.



(c) "STRANGFORD APOLLO" - BRITISH MUSEUM



(d) KORE; ACROPOLIS 682



(e) PARTHENON FRIEZE, EAST.
BRITISH MUSEUM 20.



(f) PARTHENON FRIEZE, NORTH; ACROPOLIS 864.



(g) BALUSTRADE OF ATHENA
NIKE; ACROPOLIS 10.



GROUP AT MUNICH; DETAIL OF THE GIRL'S HAIR.



THE MONETARY REFORM OF SOLON

As a preliminary to the consideration of the changes introduced by Solon into the currency system of Athens, it will be well to review the situation which he had to face. He had found the farmers of Attica in a condition of hopeless insolvency owing to the burden of borrowed money, and had relieved them by a summary process of cancelling their debts: in effect, he had adjudged them bankrupt and then given them their discharges, so that they could start afresh with the moral guarantee of the State to support their credit, like any modern trader who has similarly gone through the courts. But it would have been of little use to do this unless he had at the same time provided some safeguard against the recurrence of the trouble: this had been so widespread that it must have been due to some cause which operated throughout the industry, not to the shortcomings of individuals; and, as the step which Solon took was to reform the currency, it is clear that in his view it was the currency which had been at fault. There is no evidence that the farmers of Attica were incompetent—for instance, that their culture was bad, or their scheme of cropping unsuitable—nor that they made any change in their methods: it is true that Solon forbade the export of any agricultural produce except olive-oil, but this was presumably intended to secure an advantageous position in foreign markets: olive-oil was the one product of Attica which could command a fancy price outside the country, so that any transactions which involved payment in kind to merchants in other States might be settled in terms of a commodity that favoured the Athenians. Nor did Solon prohibit the borrowing of money: he forbade execution on the person of an insolvent debtor, but that is a regular stage in the history of legal development towards greater humanity of procedure; and there were no means, other than borrowing, open to the ancient Greek farmer for obtaining the backing of capital which is necessary for farming: in fact, if Solon wished to encourage the production of olive-oil, it would have been suicidal to prohibit borrowing, since olive-oil requires more capital than crops which give a speedier return.

It is probable that the situation in regard to the currency was complicated by the fact that the farmers did not understand money. It is true that at least a century had elapsed since the old bundles of spits, which had served the purpose of a measure of value in Greece, had been superseded by lumps of silver of fairly regular weight, which were related with the famous bundles in terms familiar to the dealer in corn.¹ But agriculturists are notoriously a conservative

¹ The date of the earliest Aeginetan coin is usually taken as not earlier than 700 B.C. But, so far as their style is concerned, they might quite well be dated to the middle of the eighth century; and, as the beginnings of

coinage in Asia Minor can hardly be put later than 800, there is no improbability in supposing that the idea was taken up in Greece some years before 700.

class of men; and it might well take the Attic farmer a long time to recognise the new silver pieces, and a still longer one to realise that what the money-changer called a silver drachma was not an absolute and universal measure, but was the amount of silver which could have been bought for a bundle of spits at the place where it was originally made into a coin, and which might be very different from the amount which could be so bought at the farmer's own market town. So, if the financiers chose to manipulate the exchanges, it is most probable that they would have had the farmers at their mercy.

The position of the financiers would be the more secure because the coinage system of Greece had originated outside Attica. The settlement of the weights and measures in use at Aegina, the main centre of trade between Greece and the Aegean in the days of Solon, was traditionally ascribed to Pheidon of Argos, whose influence caused his standard to be accepted generally in the Peloponnesus; and the first coins of European Greece were struck at Aegina in relation to this standard—whether they were issued in Pheidon's time or somewhat later does not materially affect the question under consideration. Following the example of the Asiatic Greeks and Lydians, who had led the way in the use of coined metal, the Aeginetans issued the greater part of their silver in the form of staters, that is, pieces of a regular size, the bulk of which was presumably determined by what was found most convenient for handling and transport. But, whereas the Asiatics had not given any denomination of monetary value to their electrum staters, simply treating them as units for measuring metal and designating smaller pieces as fractions of the stater, the Aeginetans related their silver staters to the old unit of reckoning in Greece, the drachma, and adjusted the content of the coins so as to make them worth two drachmas as silver in the Aeginetan market.

These Aeginetan staters dominated the commerce of the surrounding districts throughout the seventh century. There could, of course, be no compulsion on anyone to take them as the equivalent of two drachmas, outside Aegina itself, and it is most unlikely that there was such compulsion even in Aegina; but the ubiquitous nature of Aeginetan trade would probably lead to their being popularly known as didrachms in other towns, although that was not their real value in the local metal exchanges, and to their passing as of that denomination.² For purposes of internal dealing it would not matter what denomination was attached to them, so long as it was accepted by general consent: the question of differences would only arise in transactions with

² The conditions in regard to the acceptance of coins in Greece about 600 B.C. may be assumed to have been somewhat similar to those that prevailed in many parts of the Near East within recent years. A money-changer would have a regular tariff for any class of coin; but the ordinary man, if offered a coin with which he was not familiar, would regard its value as a matter of bargain, like that of any other commodity: he would ask the trader what it was worth

in his opinion, and then propose a lower figure for negotiation: if evidence as to the rate at which the coin was accepted elsewhere could be brought, it would naturally affect the transaction. I have spent a long time haggling over the value of a napoleon in a Greek village, and the exchange moved some way in my favour when a spectator present said that he had seen such coins in Athens and believed they passed there at the figure I quoted.

outside markets; and even in these the differences would probably be comparatively small, except in the case of a market which was not in close touch with Aegina.

In the Athenian market, however, the price of silver seems to have been very much higher than at Aegina: at any rate, when Solon reformed the currency, he adopted a valuation of silver which was approximately in the proportion of 8:2 to the Aeginetan; and, unless this was roughly the valuation which had been usual among the metal dealers in Athens before the reform, its adoption by Solon would scarcely have served his purpose. It may seem rather surprising that there should have been such a difference in silver prices between two towns which stood within sight of one another; but the relations between Athens and Aegina were normally unfriendly, and if Aegina was in a position to corner the silver market and make profits at the expense of Athens, she would certainly have done this.

It is probable that Aegina did actually control the supplies of silver from the Aegæan area about the beginning of the sixth century B.C. There is no definite evidence as to the date when the mines of Laureion, from which Athens obtained abundant supplies a century later, began to be worked; but, even if they had been opened in the time of Solon, they were presumably worked by private enterprise, and Aegina would be in a more favourable position than Athens for securing the output, as the cost of transport from Laureion to Aegina, almost entirely by sea, would be less than that to Athens, which would involve a good deal of overland work.² But such records as exist suggest that at this period the most important source of silver in the Aegæan area was the island of Siphnos, and this could certainly be controlled by Aegina: the mines were worked by the Siphnians, but, so far as is known, they had no ships of their own, and would therefore be dependent on foreign bottoms for the transport of their silver: there was no merchant fleet which could compete with the Aeginetan in the waters round Siphnos: so the Aeginetans could establish a monopoly in Siphnian silver, and sell it to Athens or any other market at such a price as it pleased them to dictate.

It would naturally follow, if this assumption is correct, that the prices of local products would be settled at Athens on a basis more favourable to holders of silver than at Aegina: or, in other words, that a given amount of silver would purchase more at Athens than at Aegina in an average market. Of course, as has already been noted, this would not matter much for purely local trade, so long as silver was simply the common measure of value for different articles: if the farmer got less silver for his corn, he would also pay less silver for the implements and household articles he had to buy. But, as soon as the farmer began to borrow money, he was caught in the financial net: he got from the lenders coins which were valued at the Aeginetan rates, and then had to pay the interest on the loan by means of his produce which he sold at the Attic rates: with the result that the rate of his interest was in effect increased by something like fifty per cent. on its nominal amount.

² So long as Aegina controlled the sea, she could hinder effectively the shipment of silver from Laureion to Phaleron for the Athenians if she wished.

In such circumstances the action of Solon, in introducing a new coinage based on the Athenian price of silver, would clearly afford to the Attic farmers a sensible relief from their burdens. The drachma at Athens became a coin of about 65 grains of silver, instead of one of about 90 (the standard coin was, as before, a didrachm), and a currency was provided in which silver was not overvalued in relation to other articles of commerce in the local markets. So the farmers, if they sold their produce for the same weight of silver as before, would get a larger number of drachmas; and, as the Solonian legislation appears, from the terms in which it is reported, to have provided that the new lighter didrachms should circulate as equivalent to the old Aeginetan didrachms,⁴ those farmers who had contracted loans would not require to sell so large a quantity of produce as before in order to meet the interest charges under the terms of their agreements. This is the point of Androtion's statement, as recorded by Plutarch, that Solon's relief-measure consisted not in ἀποκοπή χρυσῶν but in περιότις τόκων; and to some extent it justifies his further comment, that the debtors who paid their interest in the same number of drachmas as before, but drachmas of less weight, were advantaged, while the receivers were not injured, since the receivers were in as good a position as before, so long as they confined their operations to the Athenian market: it was only those who were engaged in international finance who would suffer. Solon could hardly be expected to include in his legislation any measures for the protection of operators in foreign exchange values: they had to take the risks which always attend this business.

If Solon was creating a new coinage to oust the Aeginetan from Attica, he would obviously have to look for a new source to supply him with silver: the Aeginetans would hardly have allowed their money to pass into Attica and to be recoinced to their own detriment. The only place in Greece which could obtain its silver without the risk of Aeginetan interference was Corinth, which drew its metal cargoes from the Illyrian mines, and coined on a basis independent of Aegina. That Solon went to Corinth for silver is forcibly suggested by the fact that the new Athenian stater was approximately the same weight as the Corinthian. Solon bought supplies of staters from Corinth and melted them individually to be restruck with Athenian types.⁵ It is true that silver was dearer at Corinth than at Athens—the Corinthian stater passed for three drachmas at Corinth, whereas when recoinced at Athens it was only reckoned as two—but Solon doubtless bought it as bullion, and his strict regulation of the export trade would enable him to negotiate for it on satisfactory terms; also Corinth would be very ready to assist any project which would damage her

⁴ There is no reason to suppose that the difference in weight would have interfered with the circulation, any more than the difference in fineness affects the circulation side by side of "silver" coins struck before and since 1022.

⁵ There are no instances, so far as I know, of Athenian didrachms which show signs of being restruck on other coins: but if the

Athenian mint did its work thoroughly, it would entirely obliterate the old types. It is only in the output of less efficient mints, such as those of South Italy, Iycaea, and Cyrene, that it is possible frequently to discern the original types of the coins which were re-used under the new types overstruck on them.

great trade-rival Aegina. In this connexion it has to be remembered that the occupation of Salamis by the Athenians would be of considerable help in carrying on trade between Athens and Corinth: so long as Megara had a footing on Salamis, it would be very difficult for merchants to get from Athens to Corinth (or the reverse) if Megara and Aegina desired to prevent them; but when Salamis was in Athenian hands, the problem of slipping across into the harbour at Cenchreae unobserved would be greatly simplified.

The relationship of the old and new currencies in regard to weight is stated by Androtion and by Aristotle in slightly different terms. Aristotle says that the mina—that is, the Attic mina, as a weight of metal—which had formerly been equal to seventy (Aeginetan) drachmas, was made up into a hundred (new) drachmas: Androtion, that the mina had been of seventy-three drachmas and became a hundred. The apparent discrepancy is possibly due to the fact, which is added by Aristotle, that Solon adopted what he implies to have been a new principle in striking his coins: instead of taking a drachma's worth of silver as the basis of his new coinage, he regulated the weight so as to leave himself a sufficient margin to cover the cost of mintage and possibly also to provide against fluctuations in the price of bullion. The market value of a talent of silver was apparently taken as 6000 drachmas, but Solon coined the talent into 6300 drachmas, with the result that the drachma coin was five per cent. lighter than the 'avoirdupois' drachma. Aristotle therefore, in his account of the relation of the old and new currencies, was thinking in terms of the actual weights of the coins, while Androtion was thinking in terms of the commercial weights.

It seems a necessary corollary to assume that Solon gave his coinage a forced currency in Attica: and, if he deliberately issued as didrachma coins which contained less than two drachmas' worth of silver, he would have to add a legal sanction to secure their acceptance at his valuation. This was probably a novelty in Greece: there is no reason to suppose that any of the earlier Greek coinages had circulated at a value other than that of bullion. Silver was put on the market in the form of coin by the cities or rulers who controlled the supplies: they would naturally keep their issues at a fairly uniform weight, according to the standard found convenient in each district, and might attribute to them a denomination which would be accepted in any market where it agreed with the requirements of trade; but this would be essentially a matter of arrangement. The electrum coinage of Asia Minor, to which reference has already been made, was certainly of the stater class: it began with lumps of metal, guaranteed as to quality and weight, but not related to any system of reckoning by drachmas and obols or the like, and subdivided, not in accordance with such a system, but in fractions of the standard unit on the Asiatic scale of thirds, sixths, and so on; and this principle seems to have governed the issues of electrum in the Aegean area down to the time of their supersession by gold in the fourth century. It is probable that the silver coinages of Greece before the sixth century were likewise issued as staters and fractions, although the stater was related to the drachma in value: Aristotle, in his account of the origin of coinage, definitely says that the marking

of coins with values was subsequent to the marking of them with a guarantee of quality and weight, and the earliest series of Greek coins which bear types differing according to their denomination are of the sixth century. When, however, a coin was stamped with such a type, this implied that the authority which issued it was prepared to accept it as of a definite value, without regard to fluctuations in the price of metal: and consequently the exact metal content of the coin became a matter of indifference for local currency. But such a measure, in a democratic State, would require legislative sanction.

For external trade, of course, it was still important that the weights of the coins should be exact: the Solonian didrachm might not be regarded as a didrachm in many foreign markets, but the merchants would accept it on a regular tariff if they knew what amount of good silver it contained; and, as one of Solon's objects was clearly the encouragement of commerce, his coins kept very closely to the norm in weight. It is instructive, in this connexion, to note the reform in coinage which took place about the same time on the other side of the Aegean. Croesus introduced a bimetallic currency in Lydia, with staters of gold and silver reckoned for purposes of internal circulation at a ratio of $13\frac{1}{2}$ to 1; and, to make the staters of convenient relative value, he issued a gold stater weighing about 126 grains, and a silver one weighing about 168, so that the gold stater was worth ten silver staters in Lydia. But, though Croesus could require his subjects to accept his coinage at these rates, the same proportion would not hold good outside his dominions: and, for purposes of foreign trade, it was more important to have the coinages in the two metals related by weight, as a fixed basis, rather than by value, which was fluctuating. So, as the Greeks were accustomed to think in terms of silver, Croesus, presumably for the Greek trade, took his silver stater as the unit and struck gold staters of the same weight as the silver, of 168 grains. This double issue of heavy and light gold staters shows that he appreciated the difference between specie and bullion values: it was dropped by the Persian Kings, who in some respects modelled their coinage on his, but were not so desirous of courting Greek trade, and were content to provide only for their own dominions. The Greeks, if they wanted gold from Persia, had to take it at the Persian valuation, until Philip of Macedon saw the fundamental weakness of the Persian economic position and captured the gold market by undercutting prices.

Practically what the reform of Solon meant was the stabilisation of the Attic drachma and its embodiment in a national coinage, whereby he secured the Attic farmers against the money lenders who exploited foreign exchange values, and gave the Athenian traders a definite basis for prices in a currency guaranteed by the State. This accords with the belief, which is generally held, that there had been no Attic coinage before Solon's time: the silver money in circulation in Attica was unquestionably Aeginetan or of the Aeginetan standard, and, if there had been coins struck by Athens on this standard, the substitution for them of a new coinage on a lighter standard would have advantaged the State, but not the farmers: the benefit which the farmers derived from the Solonian reform was largely implicit in the supersession of a foreign currency by a native one.

The Solonian coinage was short-lived, but the principles on which it was based endured. Foreign trade developed rapidly, and the Athenian merchants probably found that the Solonian didrachm of about 130 grains was not heavy enough to compete with the Aeginetan of about 180 as a unit of bullion: so a new model was introduced, in which the stater was a tetradrachm of about 270 grains. This was much better suited to the taste of the Eastern markets, which always seem to have preferred a fairly substantial lump of metal⁶; and the evidence of finds shows that, whereas the old Athenian didrachms had not been more popular in the Levant than the coinages of several other places, the new tetradrachms soon took the lead, and in particular ousted the Aeginetan stater from the position of supremacy it had long held. The change is ascribed to Peisistratus, probably correctly: he developed the mines of Laureion as a State undertaking, and so would be able more easily to forsake the Corinthian model in his coinage when he no longer had to buy his metal in the form of Corinthian staters: the slight increase in proportionate weight which was made in giving $67\frac{1}{2}$ grains of silver, instead of 65, to the drachma may show that, as he now controlled an independent supply of silver, he did not need to maintain as large a margin against fluctuation of price as Solon had introduced.⁷ The tetradrachms of Peisistratus were, in fact, the logical completion of the currency scheme of Solon, and enabled Athens to reap in the fullest measure the benefits which it offered, and to use their silver mines as a corner-stone of Empire.

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* It is possible that the heavier unit was also more convenient for trade by sea: water-borne commerce naturally can handle a greater weight, proportionally, than land-borne, under the conditions that existed in the Greek world. The Lydians, who invented coinage, wanted a unit of exchange which was more suited to caravan trade than the articles, bulky and heavy compared with their value, which are traditionally represented as having served as units; and their coins naturally tended to be small. The Greek shippers would not be so limited in regard to loading; and, especially when much of their silver

was exported as bullion, it would be easier in dealing with large amounts to have a bigger unit.

⁷ The increase in standard may also have been designed to popularise the new coinage locally; and Peisistratus could doubtless afford to give more silver as a drachma, when he mined the metal himself instead of buying it in a rather dear market, and still cover his expenses of mintage. Certainly at the beginning of the fifth century the Athenian State was making handsome profits out of the silver mines, and a tetradrachm must have cost substantially less than four drachmas for its production.

SOME CAVE CHAPELS OF SOUTHERN ITALY

(PLATES VII-IX.)

THERE are few things in history more illusive and at the same time more persistent than the tradition that the Hellenistic language and culture did not cease to be part of the life of Southern Italy when *Magna Graecia* ceased to be anything but the shadow of a great name. It is a fact that the Hellenism of South Italy has a habit of being lost sight of. It hides itself, as it were, from the end of the Punic wars till the time of Justinian. After the end of the Byzantine domination it again burrows into the earth, and it is only now when it is indeed disappearing that we begin to realise that it has been there all the time. There have always been signs of its presence for those who will look for them. Anyone who travels much in South Italy, especially in the *Terra d'Otranto*, cannot but see beneath the mixture of civilisations which jostle one another there the Hellenism which is so deeply impressed on the land and its people.

Those who would have it that after the second century B.C. Hellenism quickly and completely died out of lands which had been more Greek than Greece herself find their strongest argument in what they describe as the lack of positive evidence, i.e. inscriptions and the like. But evidence has to be sought, and such seeking in the desolation which is *Magna Graecia* has, except in one or two instances, scarcely been attempted. When it has been scientifically begun and well carried out (as at Locri) the results have been more than satisfactory.¹ In the present state of the evidence at our disposal we can only work on probabilities both as to pre-Christian and Christian times. But the probabilities seem to me to be in favour of the continuance of the Hellenistic language and culture with many vicissitudes but without cessation from the time of *Magna Graecia*.

The inhabitants of the great cities of *Magna Graecia* were not the only Greeks in South Italy. The *Bruttii* too were Greeks, of an older migration, it is true, but they still spoke Greek. *Ennius* tells us they were bilingual. Some of them were doubtless, in his time, like himself, trilingual.

Therefore it was not only in the cities of the coast that Greek was spoken, but in the towns and villages of the interior. As to Calabria (the present *Terra d'Otranto*), the *Iapygians*, amongst whom the later Hellenes with great difficulty planted their colonies, are still an unknown quantity. Possibly they were

¹ There is a small society (*Società Magna Grecia*) working under the direction of Professor Orsi which has for some time been carrying out excavations and work on a

modest scale. With more money at their disposal their efforts, which have produced exceedingly good results, might be redoubled.

Cretans, possibly Illyrians, but I think most probably Greeks of a much earlier migration. In any case their language bore some resemblance to Greek, judging by the Messapian inscriptions. It seems, therefore, much more probable that the natural affinities of the peoples of Calabria and Bruttium should be Greek, and that their speech should remain Greek, even though a barbarous Greek,² than that they should adopt the language of a people, their conquerors, with whom they could have had neither sympathy nor affinity.

The persistence of Greek after the Byzantine domination had ceased, in so many villages of Calabria³ and in the Terra d'Otranto throughout the Middle Ages, and its continuance even to our own days, seems to bear this out.

The common argument against South Italy remaining Greek is the absence of Greek inscriptions. But Latin inscriptions are also lacking except in important Roman Municipia, and the want is, in any case, due to lack of investigation.

Such inscriptions as we have support the theory of the persistence of the Greek language. They are found in Sicily, in the Campania, in Naples, Paestum and the Sorrentine peninsula as well as in Magna Graecia proper. Of these last, twenty are given in the *Corpus Inscriptionum Graecorum* and six at least are of Imperial times :—

5891. Found at Rhegium; refers to a freedman of Tiberius.

5763. Rhegium; probably of the age of the Antonines. It is a list of prytanes and haruspices; some of the names are Latin written in Greek letters.

5768. Rhegium; Latin words are used in the inscription, which is Greek.

5771. Monteleone; like 5763, probably the same date. It is a list of prytanes and archons. It mentions a πάντις Γάιος and a ἱεροκῆρυξ Ἰούλιος.

5780. Found near Taranto; contains a Latin word :

ΒΛΑΤΘΙΗ
ΚΑΛΑΤΟΡΑ
ΒΑΛΕΘΙΗ

καλάτορας = Calatores, i.e. public officials who blew the trumpet to call to the assembly—"αἶνον, ἀπὸ τοῦ καλεῖν."

5783. Brindisi; a double inscription, Greek and Latin.

These inscriptions must belong to a time after the Romans had become masters of Southern Italy; some of them possibly belong to late Imperial times, and they show that at any rate Greek was then in common use.

In the first centuries of Christianity, Christian Greek inscriptions are almost

² Strabo may mean this when he speaks of the barbarisation of the cities of Magna Graecia (Teubner ed., Vol. I. p. 348).

³ Using Calabria in its present signi-

entirely wanting except in the Catacombs of Rome, Naples and Sicily. In the Catacombs of Naples we find the sign

$$\frac{IC}{NI} \mid \frac{XC}{KA}$$

in the second century A.D.

The early Christian tradition of Southern Italy connects her with the East, with Antioch, Alexandria, Caesarea and Egypt, rather than with Rome—and that though she belonged to the Western Patriarchate. The first Metropolitan of the South was the Bishop of Rome. The earliest acts of the martyrs both of Sicily and South Italy are Greek, and the saints whose images surround the frescoed walls of churches and caves are commemorated in the Byzantine Menologium.⁴

South Italian monasticism is as early as the monasticism of Alexandria and the Egyptian desert, and is of the same type. It was probably, according to Dom Butler,⁵ brought to South Italy from Egypt. Probably it found its way here first of all. But it was not long before Eastern monasticism poured like a flood over Europe. The southern cities of Provence are full of the traces of Eastern monks. At Lerins and Arles the monasteries of St. Honorat and St. Cassian were founded on Eastern models. In North Italy it was the same, even before the Exarchate. At Florence there was at least one Greek monastery. The monastery outside the walls of Milan was a monastery of Orientals, probably Greeks, in the time of St. Ambrose.

Orosius, who wrote in the fifth century a History in seven volumes, speaks in his last volume of monasteries evidently after the Eastern fashion in Sicily and Sardinia and the adjacent islands. Gregory the Great⁶ speaks of monasteries at Gorgona. There were monks, probably hermits, at Capraria, and St. Ambrose⁷ speaks of the islands 'woven as it were into a necklace' by the monks who had established themselves there. St. Jerome⁸ writes of Fabiola as having visited the islands 'et totum Etruscum mare et . . . reconditos curvorum littorum sinus,' where there were 'Monachorum chori.' That good pagan Rutilius Namatianus, writing in A.D. 417 his *De Reditu suo*⁹—his return to Aquitania from Rome—says of the monks who inhabited the islands, 'Ipsi se monachos Graio cognomine dicunt.'¹⁰

It is impossible to estimate with any certainty the number of Oriental monasteries in Rome. Sta. Maria Antiqua was the chapel of a monastery of Byzantine monks. On the Caelian Hill there was an old and famous monastery of St. Erasmus which was flourishing at the end of the sixth century. There was a Byzantine monastery, S. Caesario in Palatino, on the Palatine, and where the church of S. Saba stands was a laura of Syrian monks.

⁴ See *Synaxarium Ecclesiae Constantinopolitanae*, edited by Père Doleynne, A. SS., November, Propylaeum; and Pio Franchi di Cavilieri, *Testi e Studi*, XIX and XX.

⁵ See E. C. Butler, *Lausanne History of Palladius, Texts and Studies*, ed. Armitage Robinson, Vol. VI.

⁶ Ep. LII.

⁷ *Hexameron*, III. 5.

⁸ Ep. LXXIII.

⁹ I. 440.

¹⁰ See also Cooper Marsden, *History of the Island of Lerins*.

The Arian persecutions were responsible for migrations from Alexandria. St. Athanasius brought with him to Rome two Egyptian monks, Ammon and Isidore, and St. Jerome says that it was from them that Rome first heard of the Thebaid and the great saints of the desert, St. Anthony and St. Pachomius.

In the south we know of early monasteries which were dedicated to Eastern saints and possessed early MSS. of their lives.

A life of St. Theodosius came from the monastery of SS. Theodore and Sebastiano at Naples, which was known as the *Casa picta*.¹¹ There was a monastery of S. Theodoro at Messina and a monastery and xenodochium at Palermo, in the sixth century.

There is a very early tradition that the monastery of St. Philip of Aegira on Mount Etna was begun in a cave by a holy hermit who established himself there.¹²

The monastery of S. Mauro¹³ at Gallipoli began in a cave in the time of the Decian persecution.

These are but instances out of a great mass of tradition which awaits the confirmation of new discoveries.

In North Italy and Provence Eastern monasticism quickly gave way to the Western spirit. It was in the South that it made its home and established its influence—that influence which may still be seen in Italian Art and be felt in the history of Italian religious thought.

It was natural that it should be replaced in the north of Italy by a type of monasticism which was of Western origin and growth, and it was just as natural that it should take root and thrive amongst peoples whose origins were in Greece and who naturally responded to the Christian call in the way in which their brethren responded to it all over the Greek East.

Later on this Greek-Oriental monasticism was largely reinforced, first by the rise of Islam and the consequent Saracen incursions into North Africa and Sicily, then by the Iconoclast persecution which raged throughout the Eastern Empire.

The two are curiously connected, for both Saracens and Iconoclast Byzantine Emperors attacked and destroyed Christian Art and desecrated the Holy Images.

Both Saracen and Iconoclast drove the Oriental and Hellenistic monks, clergy and people in companies to Italy. In the sixth century, from Egypt and North Africa, which the Saracens were then in process of conquering, came the ascetics of the desert, the followers of St. Anthony and St. Pachomius, to take refuge in Sicily and Southern Calabria, driven further and further northward as the Saracens, having possessed themselves of North Africa, found Sicily temptingly near.

The Iconoclast persecution in the eighth century drove to Italy monks and nuns from the great monasteries of Byzantium, bearing with them ancient

¹¹ Capasso, *Monumenta ad Neoplatonismum* *ducentes historiam pertinentia*.

¹² See *A. SS.*, May III, 33 seq.

¹³ Martyred at Biscaglia under Diocletian.

No early acts are extant—and to have been a Bishop in Apulia. See *A. SS.*, July VI, 359 seq.

and priceless works of art as well as the knowledge of their craft. For the great monasteries were schools of art and cunning craft and the monks were artists. Not only monks and nuns, but clergy of all grades came, as well as those, and there were many, whose livelihood was ecclesiastical craft; musicians, poets, teachers, artists of all kinds, scribes and traders.

Thus we have two separate streams of Oriental influence—the Syrian and the Byzantine both joining in South Italy—sometimes inhabiting the same lauras, and leaving their mark on religious art and life.



FIG. 1.—RUINS OF THE MONASTERY OF S. ASPIELLO DI RAPARO.

Under their influence the heremitic life, as in the lands under the Eastern Patriarchates, persisted long in Italy. We know that there were many monks, but of actual monasteries we have few traces earlier than the ninth century. Those which existed were destroyed by the Saracens. But the prevailing form of life was the heremitic life—the life of the *laura*—collections of cells on the hill-sides cut in the rocks around some hill chapel or even underground. Such were the various settlements grouped on the hills of the Basilicata under St. Luke of Armentum, which afterwards became the monastery of St. Elias of Carbone, or those on the Raparo mountains under St. Vitalis, which became

S. Angelo di Raparo. It was not until the ninth or tenth century that these settlements formed themselves into monasteries—sometimes it was not until the Normans, who regarded Hellenism in every form with great favour, built and endowed for them monasteries which they often raised to a rank equal to that of the great Benedictine abbeys. Of the monastery of Carbone, one of the richest and most important of the Greek monasteries, there are left but a few heaps of stones.

The ruined monastery of S. Angelo di Raparo still stands, with a few frescoes clinging to its walls and beneath it the cave where St. Vitalis is said to have lived (Fig. 1).

On the summit of Monte Vulture, a great dark mountain standing alone behind Melfi, dominating all the valley of the Ofanto, are the ruins of two monasteries. Monte Vulture is an extinct volcano, and on the summit in the



FIG. 2.—ENTRANCE TO THE CAVE CHAPEL OF STA. MARGHERITA AT MELFI.

old crater are two dark mysterious lakes. On a strip of land between the two is the old Byzantine monastery of St. Hippolytus, and built on one of the peaks above is the desecrated Benedictine abbey of Monticchio. Beneath Monticchio there is cut in the tufa the grotto of the Archangel Michael, a great dark cave-chapel with the frescoes of the Archangel, the Madonna and St. John.

Monte Vulture was at one time evidently a great *laura*. There are caves on all sides difficult to find and in inaccessible places—the grotto of the Archangel on the summit, San Lorenzo, Santa Barbara, the Gioconda, the Madonna delle Spinelle and the Chapel of the Crocifisso, where St. Vitalis died in 998.

This last cave is deep down on the bare hill-side beyond Rapolla, from which you look out on to other heights rising one behind the other. The cave was long used as a burial-place and skulls are still lying about. It is a three-apse chapel, very tiny. In one apse there are figures still to be seen. One is our Lord in a magnificent red vesture, seated, and giving the Greek blessing. On one side is St. Basil, on the other St. Benedict. Over another figure is the legend 'Sancia.' Evidently the place was covered with frescoes, but only

these can now be discerned. They would seem from what is left to be of the eleventh century. They are evidently painted on the top of other and older ones.

Above Melfi as one begins to ascend Monte Vulture is another and very interesting cave. It lies off the high-road by the side of a field and behind a mass of low-growing bushes. Below it lies a green and fertile valley watered by the Melfi, and behind it rise the dark heights of the mountain. When we visited it the chestnuts and vines were beginning to come out on the lower slopes, the grass under the giant olives was bright with spring flowers and the air was fragrant with their breath and joyous with the sound of bubbling streams. It was a warm spring evening, the sun was lowering to the west, and his beams entering into the cave lightened what otherwise would have been darkness. They fell upon a chapel full of colour; walls, pillars and roof covered with frescoes, many darkened with age and smoke, some destroyed, but the effect as we entered was one of subdued colour. The nave is about twelve metres in length, ending in a stone altar coloured red, with traces of ancient decoration still clinging to it. Four niches open off the nave, and at the end, near the altar, is a tiny room with a stone seat for the custodian. The cave was probably a chapel of a *laura*, for there are caves in the rock all about where monks must have lived. The chapel was evidently used later on as a chapel of the Latin Rite. None of the frescoes are earlier than the twelfth century; some are of the fourteenth and fifteenth, but underneath there are traces of older ones (Figs. 3-5).

On the roof extending throughout its whole length is a colossal figure of the 'Christos Pantocrator,' seated on a throne upon a richly embroidered cushion. His tunic is of a deep rich red and His mantle of white. In His left hand He holds an open book of the Gospels, and with His right hand He gives the Greek blessing. On the right of the entrance is a great figure of St. Michael the Archangel in the dress of a Byzantine warrior. This figure is one of the most imposing in the chapel. In his left hand the angel holds the globe, with his right he drives his lance into the dragon at his feet. His hair falls on his neck in the little ringlets peculiar to Byzantine art. His nimbus is adorned with pearls. He wears the girdle and jewelled stole of the Byzantine angel, and his hands are peculiarly fine and delicate.

Beside St. Michael on the left stands St. Margaret. Her face is destroyed, but her gemmed nimbus is still visible and her left hand is stretched out to the angel.

On the right is St. John the Baptist, bearded, with his two hands outstretched towards the great seated Christ. On the same wall as the Christ, but lower down near the entrance, is another figure of St. Michael, after the same pattern as the first, and beside him is a beautiful seated figure of the Madonna and Child. Our Lady's mantle, of a deep grey, wraps her head and shoulders. Her dark red robe falls to her sandalled feet. Her brow is low, her eyebrows dark and straight. One beautiful hand, with its long slender fingers, lies on her breast, with the other she makes a throne for the Child, whose hand, disproportionately large, is held towards her with the gesture of a Greek blessing.

His face looks out from beneath its halo with the strange look of age characteristic of later Byzantine art.

Facing the entrance, over the altar, a great central arch displays the symbols of the Four Evangelists with the figure of Christ in the midst, on medallions. These medallions are probably late twelfth-century work. On the right, underneath the medallions, is a beautiful figure of St. Nicholas of Myra. He has a delicate face and his nimbus is surrounded with pearls. Over



FIG. 2.—CAVE CHAPEL AT MELI: ST. MICHAEL.

his vesture is the episcopal stole; he is giving the Greek blessing with his right hand, while in his left is a closed book. Beneath the arch is the titular saint of the Chapel, St. Margaret, with St. Peter on her right hand and St. Paul on her left. The figure of St. Paul is scarcely discernible, but that of St. Peter is very fine. His face is solemn and dignified. His red mantle is in the many folds of the Roman toga. His hair is white and his beard short and he is giving the Greek blessing with his right hand. From the closed book in his left hand hang two keys.

In the chapel to the right as one enters there are various figures whose

faces are clear, but whose identity it is difficult to ascertain. Perhaps the centre one is St. Stephen (there seem to be stones flying about his head), with St. Benedict and St. Basil on each side.

One of the figures is probably that of the young St. Vitus,¹⁴ the child martyr of Sicily (or possibly of Lucania), who suffered under Diocletian with his tutor and his nurse.

On the right also, but high up towards the roof, is a fresco of St. Lawrence on his gridiron, a perfect Byzantine face. Beneath him is a figure stirring the fire and above him are two angels, one holding a bowl into which the other dips a sponge, wherewith probably to allay the pain of his fiery torment. The whole space here is richly spangled with stars, and here and there faces peep out and beautiful lines of drapery can be seen. The faces of the angels, like that of St. Vitus, show signs of the beginning of Italian art in their softness and mobility.

The stars on the roof here and in the next fresco, as well as round the head of the Pantocrator, ought to be noticed. They are very faint and seem often to belong to an earlier fresco. These stars are very noticeable in Byzantine art, as, for instance, in the beautiful fifth-century Byzantine Chapel of Santa Restituta in Naples Cathedral.

In Calabria the remains of lauras and ruins of monasteries are in high, often inaccessible, mountains. Two of the most notable lauras are those of S. Elias Speleotes at Mellicca and that of S. Nilo above Rossano.

Some of the remains of monastic churches are of extraordinary beauty and interest.

The oldest is probably that of the Roccaletta, which may be of the seventh century.

Mr. E. H. Freshfield gives an interesting description and some good photographs of it in his *Cellae Trichorae*. It is on the high-road from Squillace to Staletri. The beautiful little Byzantine chapels of Stilo and Rossano and the Cathedral of St. Mark, though of pure Byzantine style, are probably of the tenth century. In the central apse of the Cathedral of Stilo there is an interesting fresco of our Lord seated on a rainbow with a cherub on each side.

The Bishop's dress given in the reproduction of the frescoes by Prof. Orsi in his description of St. John of Stilo is interesting.¹⁵

In the Terra d'Otranto the Byzantine monasteries have been entirely destroyed or completely latinised.

There are, on the other hand, many remains of lauras and grotto chapels which have survived the destruction of the monasteries which took their place. When archives or cartularies of the monasteries exist, these lauras and chapels can be found described as subject churches or possessions.

¹⁴ See *A. SS.*, Jan. II, 1021, and *Bibliotheca Hagiographica Latina*, ed. Socii Bolandiani.

¹⁵ This *phelonion* or chasuble was worn by priests and bishops alike. The dress especially worn by bishops and patriarchs

was called *polystropon* from its decoration. It was completely covered with a pattern of crosses. This garment is found also on Russian icons worn by bishops and patriarchs. See Prof. Minns' note in his translation of Kondakov, *The Russian Icon*, p. 47.



FIG. 4.—CAVE CHAPEL AT MELFI: ST. MARGARET.



FIG. 5.—CAVE CHAPEL AT MELFI: PAINTED ARCH OVER THE ALTAR.
J.H.S.—VOL. L.

The great monastery of S. Pietro Imperiale at Taranto, one of the earliest and the greatest of the Byzantine monasteries under the Byzantine dominion, is a case in point.

It was destroyed by the Saracens, and after its restoration by Nicephoros Phocas it became, like the great monasteries of Constantinople, a veritable Byzantine city. It was under the direct protection of the Basileus. In a fragment of a deed found in the archives of Lecce ¹⁶ of the early fifteenth century is a list of the villages from which the monasteries of Taranto had a right to collect tribute. They were: Pulsano, Leporano, Fragnano, Patrelli, Maruggio, Monacizzo, Grottaglie, Lizzano, S. Martino, Meruglano, Montemesolo, Gilliano, S. Simone, Crispiano, Statte, Capelegnano, Carosino, Magnano, S. Marzano, Faggiano, Rocca Casale, Sanctorum Trium, Termiteto, Albano, Demetrio, Torricelle and Poggiardo. 'In queste villagie,' says the deed, 'una folla di oratorii e di cappelle era consecrata ed ufficiata secondo il rito greco.'

At many of these places the chapels still exist.

Lizzano has a beautiful subterranean rock and chapel in a low ravine, beneath the pilgrimage Church of the Annunziata. The rock chapel, like many others (Sta. Lucia of Brindisi among them), was used as a crypt into which bodies were thrown as a quick and easy method of burial. The cleansing of this charnel-house led to the discovery of the rock chapel. It is all cut out of the white tufa, with arched roof, and it has two arches. There is a central aisle from which one side aisle is divided by four square pillars, all cut out of the tufa.

The whole, walls, roof and pillars, are one mass of frescoes, showing, it seemed to us, most clearly, the gradual fading off of Byzantine influence into the softness, richness and golden colouring connected in our minds with what is known as Siennese art.

There is one beautiful Annunciation, with an Archangel in the dress of a page of the Byzantine Court. There was a Madonna which recalled the work of Giotto, but was softer and lighter in treatment, and yet another which might have been of the school of Cimabue. There was a 'Flight into Egypt' where the Child is carried by St. Joseph, and St. James the Less, in Byzantine dress, leads the ass, while an angel hovers over. There is a headless female saint in Byzantine dress, holding to her breast a cross, and carrying a satchel.

Grottaglie ¹⁷ has several chapels, many of which bear traces of great beauty and of wanton destruction. The chapel of the Lama di Pensiero is of great iconographic value. At Paggianello there are many frescoed chapels—all falling into decay. The chapel of the Holy Hermits is the most remarkable. Its frescoes are of the twelfth century and include a magnificent St. Michael.

Crispiano is full of grottoes and grotto chapels.

S. Andrea dell' Isola at Brindisi was another early Byzantine monastery

¹⁶ There is much material relating to the history of the monasteries of the Greek Rite in the archives of Lecce and in various episcopal archives. Tunzi, the late archivist of the Provincial Archives of Lecce, has published some valuable extracts from these

archives, but there is a mass of matter still untouched at which I was able to work.

¹⁷ Grottaglie, Paggianello, Sta. Lucia of Brindisi, S. Biagio, S. Giovanni Battista, the Santi Stephani of Veste are mentioned by Diehl in his *Manual of Art Byzantine*.

which appears to have escaped destruction by the Saracens. It attained to great power and wealth in the early part of the eleventh century. According to a record of its history and possessions in the archives of Lecce, many districts paid tribute to it. Rodota mentions three monasteries in Brindisi which were subject to it—the Sanna,¹⁸ S. Giacomo, and S. Basilio.¹⁹ S. Andrea according to this document owned tracts of land between Lecce and Ostuni, and Mesagne was a collection of villages occupied by vassals of the monastery. This was a state of affairs sufficiently frequent in the case of Byzantine monasteries after the Norman Conquest, but by Byzantine law monasteries were not as a rule allowed to hold land.

As in the case of Taranto, there are remains of lauras and grotto chapels in the neighbourhood. In the midst of the town of Brindisi is what is known as the grotto of Sta. Lucia in Via Lata. It is underneath a church and serves as its crypt, but, like the crypt of Otranto Cathedral, it was the original church. It still contains a very beautiful fresco of the Madonna. Some fragments of colour on the walls are all that are left of the other frescoes, of which evidently there were many.

PLATE VII.

About twelve kilometres north of Brindisi, near San Vito dei Normanni, there are the lauras of S. Giovanni Battista and S. Biagio, each with its chapel.

The country is so flat that at first sight there seems little possibility of the existence of caves. There are, however, shallow valleys where the tufa rock, never far away, comes to the surface, rising from six to eight metres from the level. Sometimes, when the ground is apparently quite flat, the monks have dug down a few metres and made their caves underground. This is what happened in the cave known as that of San Giovanni in the Masseria Caffaro. This chapel Camasso, the Director of the Museum of Brindisi, and the Russian excavator Protassof rediscovered in 1914. All around it they found caves of habitation, one evidently used as a kitchen and refectory, others with sleeping-places. A cave close to the chapel with one sleeping-place was evidently the guardian's cell.

The little chapel is about seven metres long, five wide and two and a half high. A great pillar of tufa in the midst supports it. It has three tiny apses, in one of which is a fine St. Michael and a Christ with the Madonna on his right hand and St. John the Baptist on his left, the group known as the Deësis. The drawing of the figures is not beautiful and the colours have faded. The Baptist wears over his garment of skin the Orarium, or stole, mentioned by the Emperor Basil in his Menologium of the ninth century as worn by priests in all ecclesiastical functions. It is a straight piece of cloth covering the shoulders and fastened with a knot or brooch. It is peculiarly Eastern and bears some resemblance to the praying shawl worn by the Jews. On the south wall is a beautiful

¹⁸ The 'Sanna,' probably for 'Hosanna,' is now an underground round grotto chapel outside Brindisi—to which the Archbishop and Canons of Brindisi Cathedral walk in procession every Palm Sunday singing in Greek the Gospel of the Passion.

¹⁹ One of these monasteries may have been

the same as the San Salvatore which Pope Honorius took under his protection in 1216. The present church of St. Benedict stands on its site. A portion of its cloister remains, and some of the capitals of its pillars can be seen in the Museum.

Madonna holding in her hand a globe, on which are the Greek M and Θ, and below a Π perhaps standing for Pantocrator. Beside her is St. John the Baptist clothed in tunic and pallium, like the one in the chapel of S. Venanzio in the Lateran, which dates from the seventh century. The third figure is that of St. Clement, which bears the legend of 'Clemens R.P.'; he wears a curious tiara with two horns like that of the Hebrew high-priest. Tarentini, the learned Archdeacon of Brindisi, who seems to have known of this cave in 1878, says that this headress was worn by bishops to whom the Western Emperors had granted the right of coining money, and is taken to imply the possession of the temporal power by the Roman Pontiff.

The Lecce archives speak of a monastery Sta. Maria di Ferulellis which was on the site of the Masseria Caffaro.

About two kilometres further off in a tobacco plantation is the laura of S. Biagio.²⁰ It is a complete laura and is most interesting from every point of view. It seems to have been inhabited by both Hellenistic and Syrian monks, for some of the caves have straight slabs of rock as sleeping-places, while in others they are curved like mangers. Moreover, some of the curved sleeping-places are not in caves but under an overhanging rock which shelters them from sun or weather. The caves are all cut in a long low tufa rock. One is large enough to accommodate a company of perhaps twelve. There are rude seats cut round it. This as well as the other caves have places cut for fire and light.

The chapel is also a cave. It has a rounded entrance with a high step and looks to the west. It is about twelve metres long, five wide and two and a half high. It is rectangular, and all around the walls towards the east there is a long low seat cut in the rock. The cave was evidently used as a chapel in modern times, for above the altar are three modern figures, apparently those of St. Nicholas, St. Biagio and perhaps St. Peter Damian. The chapel was evidently completely covered with frescoes, but many have entirely disappeared and many are scarcely discernible or quite unrecognisable. Tarentini says that it used to be a favourite occupation of the people to use the heads of the frescoes for rifle practice. Probably, too, a good many of the figures have been wilfully destroyed with the hope of finding treasure behind them (Figs. 6-8).

The oldest frescoes are those in the roof, which are probably twelfth century. The most striking is the great Ancient of Days. It is on the roof, in the midst of a representation of the visions of Isaiah, Ezekiel and Daniel. Around the central figure are the symbols of the Evangelists, and at each corner is an angel. All around the majestic figure with its white beard and hair are stars, and the Greek legend ο πολαιος των ημερων appears written beside him. He is girdled, as in the vision of Daniel, and His right hand is raised in the Greek blessing. In His left He holds an open Book with the words: εγω ειμι ο αμπελος ο πατηρ μου ο γεωργος. In the corner stands an angel with veiled hands.

On the roof also are represented the Annunciation and four scenes from the

²⁰ Cf. Diehl, *Manuel d'Art Byzantin*.

life of our Lord, the Nativity, the Flight into Egypt, the Presentation, and Christ entering Jerusalem.

The Flight into Egypt represents the Child on the shoulder of St. Joseph and the ass led by St. James the Less (his name is written beside him), while an angel with a staff conducts the party. The story is taken from the apocryphal *Protevangelion* of St. James. On the south wall of the cave is the seated figure of S. Biagio. It is signed by a certain Daniel, and the date 1197 is given.²¹ He is surrounded by various people connected with his life and martyrdom; we recognise the youth from whose throat he drew the thorn and the woman who gathered up the blood shed in his martyrdom. But the most interesting fresco on the wall is that of the Nativity, which is also taken from the *Protevangelion*. Unfortunately the fresco is in a very bad state of preservation,



FIG. 6.—CHAPEL OF S. BIAGIO, SAN VITO DEI NORMANNI: THE ANCIENT OF DAYS.

Our Lady is seated in an attitude of weariness, her head leaning on her left hand. The other hand holding a handkerchief lies heavily on her lap. Below her Salomé, assisted by a nurse, is bathing the Child, and on the left are the shepherds, to whom the angels are announcing the Birth.

A little way off sits St. Joseph, also in an attitude of dejection. On the right advance the Magi on horseback with uplifted hands. Two of them, Melchior and Gaspar, are represented full size, but for Balthazar, the third, there was apparently no room. He is to be seen below as a tiny, almost indiscernible object. The arrival of the Magi²² at the moment of the Nativity is characteristic. In the Apocryphal Syrian Gospel of the Childhood they have been warned of the great event and arrive in time to assist at it, only waiting till they shall be summoned, to present their gifts.

The attitude of the horsemen in this scene—so full of movement and

²¹ This date can no longer be seen.

²² These Magi are dressed as warriors.

vivacity—recalls the mounted figures on a piece of Egyptian tapestry of the sixth century in the British Museum. There are distinct marks on this fresco of Cappadocian influence. The flute-player, for example, is found in the Nativity scenes of the Cappadocian frescoes reproduced by Père de Jerphanion. There are inscriptions above the figures scarcely discernible now which quote in some cases their words, e.g. that above Salome seems to run *θεῖς κριο Σαλομη [δ]ις το παιδιον*, e.g. *παιδιον*.

The whole fresco bears a strong resemblance to the compositions found at Karabash Kilessi at Soghanli.²³

There is much in this cave which recalls the cave at Lizzano. This is especially so in the fresco of the Flight into Egypt.

That there were other chapels now entirely vanished is clear from the archives, which speak of the chapels of S. Donato, S. Angelo, the Santo Spirito, S. Vito, S. Andrea, SS. Cosmo and Damiano.

Subject to the Greek Cathedral of Oria were also Greek chapels, possibly cave-chapels, which held great fairs in the neighbourhood, *more Graecorum*, say the archives.

The archives record also that in the diocese there formerly flourished a monastery of S. Basilio. This was given with its subject churches in the year 1092 by Bohemund to the Benedictine monastery of S. Lorenzo of Aversa.

Sta. Maria di Carrate, lying north of Lecce on the Via Egnazia-Traiana, was a Byzantine monastery of great importance which was robbed of nearly all its possessions by Tancred, Duke of Lecce, to build and endow the church of SS. Nicholas and Cataldo of Lecce. The remains of the monastery can be seen in the Masseria, in the midst of which stands the church, which still amid disrepair and degradation bears on its walls signs of its original beauty. There is a fourteenth-century *κοιμησις* of Our Lady closely resembling those which we find in some early Byzantine illuminated Gospels.²⁴

The capitals of the pillars in the cloister which remains on one side of the church are Byzantine.

The whole country was the home of the Greek Rite and in every direction are to be found remains of Byzantine art.

At Soleto, where the Greek Rite was still in use in the fourteenth century, there are many remains of Byzantine frescoes in the Church of St. Stephen. One of the most interesting is that of the Angel of the Great Counsel (*ὁ ἄγγελος τῆς μεγάλης βουλῆς*), who wears the nimbus inscribed with the cross peculiar to the Christ. He is inscribed with the sign *σοφία ο λογος του θεου*. The symbol is confined to Greek iconography. There is an Assumption of the Virgin (*κοιμησις*) which Diehl ascribes to the thirteenth or fourteenth century. And on the west wall there is a picture of the Last Judgment which closely resembles those which can be seen in Greece. The lost ones are inscribed with names according to their sins, e.g. *κλέπτης*, and in some cases with their trade, e.g. *ταβερναριος, κτίστης*.

²³ See Millet, *Recherches sur l'Iconographie*. See also the photos by Père de Jerphanion in the *Revue Archéologique*, 1908

(IV, 12, p. 1), of the Chapel of Sta. Barbara.

²⁴ B.M. *Harley*, 1810, etc.

The wonderful frescoes of S. Angelo in Formis must be passed over for want of space, and because they have been treated fully in many books on art.²⁵



FIG. 7.—CHAPEL OF S. BIAGIO, SAN VITO DEI NORMANNI: THE NATIVITY, AND S. BIAGIO.



FIG. 8.—CHAPEL OF S. BIAGIO, SAN VITO DEI NORMANNI: THE NATIVITY, ARRIVAL OF THE MAGI, AND S. SYLVESTER.

South of Brindisi and Lecce the monasteries of the greatest antiquity are those of Sta. Maria of Nerita, S. Mauro of Gallipoli and S. Nicola of Casola. The archives of Lecce record that in the early part of the tenth century the

²⁵ See Diehl; and Westlake, *Mural Painting*. The latter gives good reproductions.

'Territory of the city of Neriti' (Nardo) extended along the Ionian sea line till it reached the confines of the city of Taranto, joining also those of Otranto and Gallipoli. Trinchera²⁶ says that in the ninth century many Greek scholars settled in Italy, and especially in Iapygia, and that a school of Greek learning was established at Nardo by scholars sent by the Patriarch of Constantinople. Before the advent of the Normans the Rite of this city was Greek and the monastery of Sta. Maria was of great wealth and importance. The bishops were Greek. So great was the Greek influence that after the Normans the Greek bishops remained side by side with the Latin until the fourteenth century. In a notary's document of 1402 we find twenty villages depending on the Hegoumenos of Sta. Maria di Neriti. In the episcopal archives of Nardo²⁷ were found several Greek documents, wills, deeds of gift, etc., relating to the monastery of S. Mauro. From which it appears that the monastery of Sta. Maria had jurisdiction over S. Mauro. The place where the monastery of S. Mauro was situated is called in the old deed τόπος ἀναφοράριος.²⁸ In another charter it is said to be in the ἀναφοράριω καλλιπόλει. The Greek name for Gallipoli was Καλλιπολις, for the beauty of its situation—a name it still merits. It was under the Byzantines a fortified little island which was later on joined by a bridge to the mainland, where its gardens, fields and vineyards, and in fact all its lands, were. It, like Otranto, was under the military rule of a strategos, and these two evidently divided between them the rule of the Province. It appears from the lists of property-holders in the archives of Lecce that the monastery of S. Mauro, the chief Greek monastery of the town,²⁹ remained in possession of its lands here during the whole fourteenth century and had the administration of the churches of Sta. Maria di Alizza, S. Nicolas, S. Pietro, S. Maria delle (?) Servine and of S. Basilio. S. Mauro still held them at the end of the fifteenth century, as we see from a charter of 1497.

In the sixteenth century, however, none of these possessions was left. In 1567 the bishop, making a visitation of various places in the diocese, found the church of the monastery covered with pictures and possessing three altars—the High Altar evidently with its diaconicon and prothesis, which can still be seen. He says: 'Quae ecclesia est in Campania et in eo loco non est incolatus hominum et sunt penes dictae ecclesiae nonnulla aedificia antiqua diruta . . . consistentia in diversis membris, videlicet in una sala discoperta, cum una camera coperta palatiata cum diversis aliis locis dirutis et est quaedam spelunca.'

All the buildings have disappeared except the chapel. It stands alone on the hill-side and still contains many pictures, but it is used as a fold for sheep and has no door. From the outside its three apses can be seen. There are traces of caves, which were doubtless monastic caves, but they are now full of rubbish.

²⁶ See Trinchera, *Syllabus Graecorum Membranarum*, Introduction, p. x.

²⁷ See Trinchera, *Syllabus Graecorum Membranarum*, pp. 514-31.

²⁸ A signatory to this document is called

ἀναγνώστης τῆς ὁὔλης.

²⁹ There was a monastery of St. Stephen in Gallipoli called St. Stephen by the Fountain; perhaps the present town fountain marks the site.

About a mile away in a farm-house is what perhaps was the chapel of a *laura*, probably belonging to S. Mauro. The farm-house is called after it the *Masseria di San Salvatore*. It still has a fragment of its iconostasis, of diaconicon and prothesis, and above the high altar is a beautiful *Deësis* (Fig. 9).³⁰

But of all the Greek monasteries of Southern Italy the most touching and romantic is St. Nicolas of Casola.

Of the earlier history of St. Nicolas we can only conjecture that it was the same as that of St. Elias of Carbone and Sta. Maria of Rossano, i.e. that it sprang into existence about the tenth century from the *lauras* and caves which grouped themselves on the moorland and solitary places of the headland. In



FIG. 9.—DEËSIS IN RUINED CHAPEL OF SAN SALVATORE.

the country round there is abundant evidence of the existence of a mass of caves. The monastery whose poor ruins exist to-day was built in the time of Bohemund Prince of Antioch, doubtless by his aid. The monk Joseph was its builder and the first Hegoumenos of the monastery. As in the case of St. Peter

³⁰ The symbolic representation of our Lord with the Madonna on His right hand and St. John the Baptist on His left, the one as the intercessor of the New Testament, the other of the Old. This representation is purely Byzantine. It has also the place of honour on the iconostases of Russian churches. See the publications of the Kondakov Academy at Prague. The iconostasis naturally means the place of the ikons and is properly covered with frescoes. The various iconostases mentioned here as having been

seen in these chapels have no frescoes on them. Generally only fragments of them are left, and whether any of them ever were adorned with frescoes it is impossible to say. At Guadagnano, where the iconostasis is not destroyed, there are no traces of frescoes. It is lower than the iconostasis generally is.

The *Deësis* usually occupies the place of honour in the iconostasis and there are figures on each side. In this case the *Deësis* is painted on the wall above the altar.

of Taranto and St. Elias of Carbone, we find the Norman Dukes constant in their benefactions and their protection to the monastery. In the famous *Typikon*³¹ we have a list of its Hegoumenoi until its destruction by the Turks in 1483. It was a magnificent building with a famous library, and was one of the most famous centres of Greek culture in Italy. After the schism its Hegoumenoi acted as intermediaries between the Pope and the Emperor of Constantinople. The Hegoumenoi of all the Greek monasteries of Southern Italy were under the obedience of Rome, but occasionally their sympathies were with Constantinople.

Nectarios,³² Archimandrite of St. Nicolas, who was present at the third Lateran Council which condemned the Albigensian heretics and the 'evil deeds of the schismatics,' seems to have violently defended the Greeks in some particulars—it does not appear exactly what. He thereby gained great kudos for his monastery among the Easterns, and Labbé publishes two letters of commendation for his action written by Georges, Metropolitan of Corfu.

So zealous was the monastery for Greek learning that it had a house close to the monastery where it received and instructed gratuitously those who wished to study. Its library, famous all over Italy, was dismembered by Cardinal Bessarion, who carried its most precious MSS. to Rome and to Venice, happily—for the Turks destroyed all that was left. The monastery church was restored after the Turks destroyed it, but Diehl writing in 1886 of it says: 'Dans la vaste enceinte occupée aujourd'hui par les bâtiments d'une ferme, seule une petite chapelle fait souvenir de l'antique splendeur du couvent. Quelques restes de peintures accompagnées d'inscriptions grecques en couvrent les murailles. Ici St. Nicolas patron de l'abbaye, là St. Cosme et St. Damien les deux saints médecins si chers à l'Eglise grecque, St. Basil le protecteur des moines répètent l'origine et les traditions du Monastère. Encore les misérables restes ne tarderont-ils pas à disparaître; déjà l'incurie des paysans a transformé la chapelle en grenier à foin et bientôt du vieux couvent si célèbre au moyen âge il ne subsistera plus qu'un souvenir et qu'un nom.'

What Diehl foretold has already come to pass. All that remains of this monument of the Greek culture of mediæval Italy is a broken arch in a filthy farm-house!

But though the monastery has disappeared the lauras and grotto chapels from which it sprang into being are still buried in the rocks around.

About a kilometre from the city of Otranto is a farm-house called Torre pinta, containing the laura called to this day the Laura S. Nicola. All around is a whole collection of prehistoric caves which, from the signs found in them, were evidently used by monks as habitations. Fragments of frescoes still remain on the walls of what was evidently the chapel. Close to Giurdignano, a hamlet near Otranto, is a subterranean chapel, a complete chapel of the Greek

³¹ There is a copy of the *Typikon* of St. Nicolas in the MSS. Barberini in the Vatican. The most perfect was burnt at Turin.

³² (See Labbé, *Concilia*, ed. Par., 1644, vol. 27, pp. 469 seq.) Nectarios is called

³³ *Græcorum schismaticorum legatus.*

Rite with iconostasis, diaconicon and prothesis in perfect condition. There was a fresco on the central apse which has almost disappeared.

The roof is remarkable; it is of cut stone and reminds one of traverse beam-work which is found in some Etruscan tombs (Fig. 10).

Near Muro Leccese in the garden of a cottage is a subterranean grotto of habitation divided into three cells. Each cell has a hole cut in the rock for making a fire and for placing a light, and each has also a place for sleeping. In one, this place is flat like a stone slab, in another it is curved, and in the third is shaped like a chair. Each cell has a Byzantine cross cut near the sleeping-place. In the entrance facing the three cells, which look all the same way,



FIG. 10.—CAVE CHAPEL AT GUARDIGLIANO.

there is a round hole evidently for admitting air. On the pillar which faces the entrance is cut the symbol



At Carpignano is another underground cave chapel evidently belonging to a *laura*, probably subject to S. Nicola of Casola. There are several caves in the neighbourhood, evidently caves of habitation. The chapel has several frescoes, of which two are of especial interest.

The earliest is a representation of an Annunciation, with Christ enthroned between the Madonna and St. Gabriel. A Greek inscription under it says that it was painted in 959 by the painter Theophylactos for the salvation of the souls of the priest Leo and his wife and sons. The fresco was evidently painted under Alexandrine influence, for the Christ is an exact copy of the Christ of the Coanios, a sixth-century MS. of Alexandria of which there is a seventh-century copy in the Vatican.

PLATE VIII.

The inscription reads :

ΝΗCΘΤΙ Κ~ΤΥ ³³
 ΔΥΛΥCΥΛΕΩΝ
 ΤΟC ΓΡΕCΒΙρ~Υ
 Κ/ ΤS CΥΜΒΙΧ
 ΑΥΤΥ Χρυ
 ΠΑΥ
 ΑΥΤΟΝ
 ΘΕΟΦΥΛΑ
 ΓΡΑΦΥ ΜΗΝΙ
 ΔΙΚΤΙΟΝ

μ]νήσθ(η)τι κ(ύριε) τοῦ
 δούλου σου Λέον
 τος πρεσβυ(τέ)ρου
 καί τ(ῆς) συμβίου
 αὐτοῦ Χρυ[- -
 καί τῶν] πα[ιδίων
 αὐτῶν
 χεῖρ] Θεοφυλά[κτου
 ζω]γράφου μην[- - -
 ἔτων - - -]ν[δικτίου]

On each side of the Christ there are the figures of the Annunciation. Mary is seated, and at the back of her throne is a Greek monograph. The standing angel, over whom is written Gabriel in Greek characters, is giving her the Greek blessing with his right hand, the other is hidden in the folds of his robe. He has a young soft face and the ends of his white fillet lie against his nimbus. Soft too, and round, almost Coptic in character, is the face of Mary, whose hand appears from under the embroidered edge of her heavy cloak, holding a distaff. The cave contains another Christ, painted in 1020 by an artist called Eustachios for a certain Hadrianos.³⁴ His Christ is seated, richly clothed, His face stern and austere, His whole attitude rigid and unbending and majestic. The dress falls in long straight folds with a jewelled girdle and stole. His whole attitude is that of a judge. Here mystery and awe take the place of the benign gentleness of the Syrian Christ.

In the midst of fields just outside the old Messapian city of Vaste is the grotto known as the Santi Stefani, from the many frescoes of the saint which covered pillars and walls. It had some interesting frescoes and an almost perfect iconostasis three years ago. Now many frescoes have disappeared and hardly anything is left of the iconostasis. It is of a fairly large size, eleven metres long and nine wide, and on each side are three arches. Diehl in 1900 speaks of a Christ in the right apse, SS. Basil, Nicolas and Gregory on the left, and the figure of the archangel, which appears to be early twelfth-century work. Very little of these is to be seen.

In the spring of 1930 I saw still remaining in fairly good condition a fine Madonna on the right wall, various figures of saints, some of St. Stephen, St. Paul, St. Nicolas; a beautiful Christ with angels and some figures of women saints. The chapel is open to the weather and what is left cannot be long preserved.

Near to Casamasella is a ruined chapel built underground in the rock, evidently the chapel of a laura. It has three apses and is seven metres long by

³³ The inscription has almost disappeared from the walls. Professor Dawkins kindly read this from my photograph. The years

of the world and of the era have now disappeared.

³⁴ The inscription is no longer legible.

5.39 wide. The central apse seems to have been in later times cut away for an entrance.³³

The place has been used for storage or shelter. There was an iconostasis of which remnants remain. There are remains of two frescoes, one on the first pillar beyond the old entrance, evidently an angel, for it bears traces of wings. The other is on the left pillar facing west. It is that of a young saint who has his counterpart in the next chapel to which we come, that of Poggiardo. He may be St. Eleutherius.

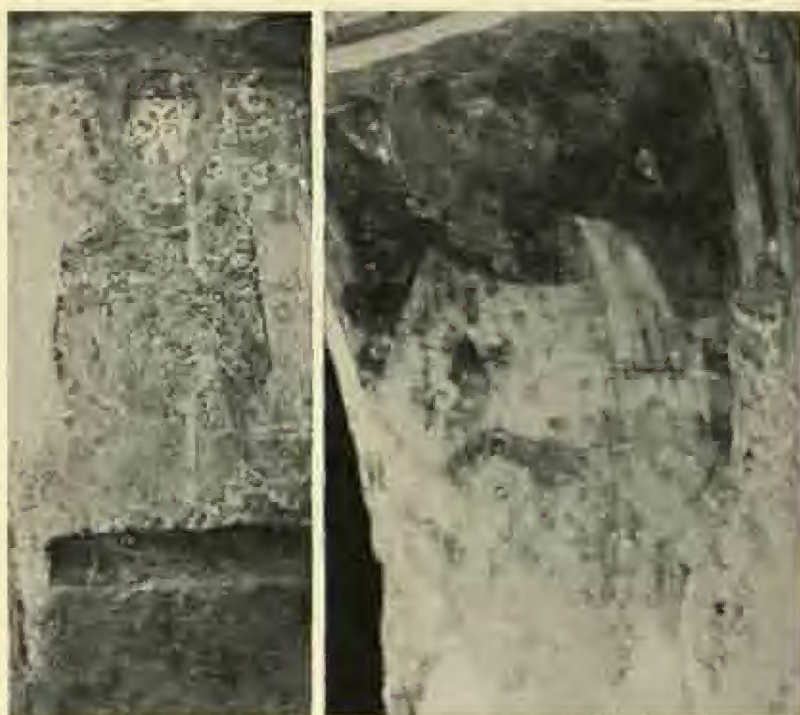


FIG. 11.—SAINTS FROM THE CAVE CHAPEL, POGGIARDO.

At Poggiardo, not far from Otranto, an important discovery has recently been made. We know that there was an important monastic centre here, because in the *Typikon* of St. Nicolas of Casola it is mentioned that books were lent from the great and famous library of St. Nicolas to the monks of Poggiardo. But until quite lately nothing was known of it. A few months ago the municipality began to lay new drains; and in cutting down into one of the main streets they came upon a hole, evidently cut in the rocks. Further digging disclosed that this rocky cavity had pillars and arches and that on the walls were traces of colour. The traces of colour turned out to be fine Byzantine frescoes and the hole a three-apsed chapel of the Greek Rite, with the remains of iconostasis and altars (Fig. 11).

³³ It is known as the Chapel of Sta. Elena.

We found it all dug out but full of filth, for it is in the main street and open to the weather and to all the rubbish which the villagers like to throw into it. In the central apse there is a beautiful Madonna and Child. In the apse on the right is Michael the Archangel with a spada, dressed as a Byzantine warrior—with, in the left-hand corner, a medallion bearing the inscription Π.Ρ.Τ. possibly for πρωτόταξις. On the left there is a long row of figures, amongst whom are St. Gregory Theologos, the famous St. Parasceve,³⁰ and St. Peter. In the midst is Christ as Light of the World, bearing an open Book in which can be seen on one page εὐοίμη το φῶς του [κόσμου εἰ τις], and on the other ἀκολουθεῖ μου μὴ τέορη (= θεωρῇ) το(ν) θάνατον]. The colouring of these figures is very good. The robes are richly embroidered. The hair is reddish and the eyes a beautiful red-brown. The feet in their sandals are fine and delicate, and behind them there is a drapery in layers of colour—blue, red, yellow, red.

The chapel is about seven metres long and four wide. It is low, about seven feet. There is no trace of an entrance, which must have been by a rough rock staircase. The place was evidently built up and forgotten when the town grew up. There are indications of caves of habitation around. We saw some of the cellars of the houses in the neighbourhood, which bear traces of roughly-cut crosses and holes for air and light, such as one finds in all these caves where the monks lived.

It seems probable from the quantity of frescoed caves in this neighbourhood that St. Nicolas of Casola was an artistic as well as a literary centre. It probably had intercourse with Constantinople and other centres of Byzantine influence up to a late period. The frescoes of Poggiardo and the remnants of the frescoes of S. Elena, which would seem to be late twelfth or early thirteenth-century work, are Byzantine and not Syrian in type.

In the curious monument known as the Cento Pietri at Patù, which was certainly used as an oratory, there were frescoes described by Diehl which were evidently of great beauty and importance. Scarcely a trace of them, however, is left.

PLATE IX.

There is no space in this short review to do more than mention the rock city of Matera³¹ with its cave-chapels and remarkable frescoes—those of Paggionella; of Massafra, and Cellimane and Ruffano; of Casalrutta and Mottola; all of them worth much more than a cursory glance. Neither have I said anything of the caves in the west near the Gulf of Salerno, which need separate investigation.

The caves which have been described here extend from the Basilicata to the extreme south of the Terra d'Otranto and show considerable diversity in

³⁰ See Nilles, *Kalendarium utriusque ecclesiae*. According to the Menais, St. Parasceve was born in South Italy, was venerated in South Italy and Sicily as well as in the Balkans and among the Slavs. She was born, as her name indicates, on Friday—which day among the Eastern churches was especially the day of women.

There seem to have been two SS. Parasceve, one who was martyred under Antoninus Pius and the other under Diocletian in

Iconium. The Russian ikons of St. Parasceve preserve the early Christian type of a Deaconess. See Prof. Miksa's Note, pp. 99–100 of his translation of Kondakov: *The Russian Icon*.

³¹ The photographs of Matera reproduced for the first time on Plate IX are by Prof. Gatti, Superintendent of Scavi for the Basilicata, by whose kind permission they are here shown.

style and execution. Some, such as those of Sta. Margarita, are Byzantine but executed after the Norman Conquest, like the beautiful Madonna in Melfi Cathedral. Others, like those of S. Biagio at Brindisi, are Syrian in character. The Carpignano Annunciation must have been due to Coptic influence, but whether that influence came directly from Egypt or by way of Alexandria or Constantinople is difficult to say. I hope in a work which I am preparing on the South Italian frescoed chapels to pass in review and classify as far as possible the different types of these paintings. For the interesting question as to whether these Eastern influences, which are very evident, came directly from Antioch, Alexandria, Ephesus or Cappadocia or whether they came through Byzantium has been discussed by Dalton, Millet and Diehl, and is too much a matter of dispute to enter upon here.³⁸



FIG. 12.—CAVE CHAPEL OF POGGIARDO, SHOWING FRAGMENTS OF ALTAR AND ICONOSTASIS.

In one respect these cave chapels are unlike those of Cappadocia, Greece and the Balkans, i.e. they do not seem to contain any frescoes of the Passion³⁹ and Resurrection or of the Childhood of Our Lady.

They are exceedingly rich in representations of the saints. Everywhere there is the Madonna and Child, St. Michael the Archangel and very frequently a Deësis. Some of them, e.g. the Santi Stefani at Vasti, probably S. Biagio and certainly the Cento Pietri, were probably merely oratories used only for the saying of the office by the monks of a particular laura, who went to the monastery for the Sunday liturgy. They are entirely monastic, and the late date of many of the frescoes shows that the Greek Rite in Southern Italy in the fourteenth century was not merely a moribund survival, but that it was in touch with the East and was a distinct factor in the Hellenistic culture which was a part of the Italian Renaissance.

GERTRUDE ROBINSON.

³⁸ See, besides the above, L. Brehier, 'Art Byzantin,' *Journal des Savants*, 1914; and T. Schmidt, 'Renaissance de la Peinture Byzantine,' in *Revue Archéologique*,

1912 (IV. 20), p. 129.

³⁹ There is at S. Biagio an Entry into Jerusalem.

THE SIZE OF THE ARMY OF XERXES IN THE INVASION OF GREECE 480 B.C.¹

1. I HAPPENED to be staying in Constantinople in the late summer of 1922 as the guest of General Sir Charles Harrington, and I was there when the Chanak crisis of that year arose. I visited the Narrows of the Dardanelles at a time when Kemal's leading troops were approaching the Asiatic coast of the Dardanelles, and there was then naturally much debate as to whether and how he would attempt to cross into Europe. It occurred to me at the time that it would be of interest to study what Xerxes had done 2402 years previously, and on returning to Constantinople I borrowed a Herodotus from the American College, and when the crisis had died down I went back with it to the Dardanelles. In that district, during the dry season, the problem of water supply looms large, and I was at once struck on reading Herodotus by the fact that this had been also Xerxes' chief difficulty, in that portion of his march which took him from the Scamander, the modern Menderes, across the Hellespont to the Hebrus, the modern Maritza.

2. With this in mind I went over that part of the route, with Herodotus and a modern map,² and I then came to the conclusion that the nature of the country put a definite limit upon the size of an army marching under such conditions as Herodotus describes. Since 1922 I have at my leisure examined the accounts of a considerable number of the authorities who have described Xerxes' invasion of Greece, from Grote to Mr. J. A. R. Munro in the *Cambridge Ancient History*, and it would appear that no one of them had either himself examined the north-eastern portion of the Gallipoli peninsula or had access to the reports of anyone who had done so. Leake confined his survey of the shores of the Hellespont to the Asiatic side, and his *Travels in Northern Greece* did not extend into the most northern portion of Thrace, while Grundy's admirable topographical descriptions of historical sites are confined to Greece. Mr. Munro and Professor Anderson explored Xerxes' route travelling northwards from Mount Athos, but appear to have ended their journey on the Hebrus.³ The reason why no seeker after historical truth has been able to explore the eastern portion of the Gallipoli peninsula is, I think, that the peninsula has, until recently, been a fortified area of great importance to Turkey, and the Turk would have been disposed to regard anyone proposing

¹ I desire to acknowledge my indebtedness to Mr. J. A. R. Munro, Rector of Lincoln College, Oxford, for much valuable advice.

² The 1:250,000 map revised by the General Staff, War Office, from which the attached

map has been prepared.

³ Munro, 'Some Observations on the Persian Wars,' *The Journal of Hellenic Studies*, XXII, 1902, p. 294.

to make a detailed examination of the ground as a naval or military agent. Having had the good fortune to be able to examine what I regard as the part of Xerxes' route which provides the key to the problem of the size of his army, under exceptionally favourable conditions, it seems that I have a contribution to make in the solution of a problem which has vexed all the authorities who have discussed it. Almost all are agreed that Herodotus' figure of 2,100,000, exclusive of followers, for the army (Book VII. 184-85) is impossible. Grote, while confessing himself to be unable to arrive at any definite figure, considers the army to have been the greatest assembled at any epoch in history; ⁴ Rawlinson estimates the armed force at 1,190,000; ⁵ Thirlwall is disposed to accept Herodotus' figures; ⁶ Curtius puts the strength of the army at 880,000; ⁷ Bury at 300,000; ⁸ Busolt accepts 300,000, including followers; ⁹ Grundy accepts half a million; ¹⁰ Macan computes the number of combatants at 360,000; ¹¹ while Delbrück, who probably consulted some of his friends of the German General Staff and learned from them the nature of the problem of marching a large army through such country, puts the number of Xerxes' combatants at from 65,000 to 75,000. ¹²

3. Recently Mr. J. A. R. Munro has, first of British historians, examined this question of the size of Xerxes' army from the point of view of the military requirements. ¹³ He has confined himself to conditions of organisation and command, and comes to the conclusion that the Persian army was composed of three corps, each of about 60,000 men. I had in 1922 independently arrived at a very similar figure by a different process.

4. Xerxes was engaged for from three to four years in preparing for this expedition, the main features of the preparation, besides the gathering of the army from all parts of the Persian Empire, being the digging of a canal through the promontory of Mount Athos, the construction of two bridges over the Hellespont, and the accumulation of stores of supplies at various points on the projected line of march. I am concerned only with one of these stores of supplies, that at Leuce Acte; the others are outside the region which I surveyed and have no bearing on the problem with which I am concerned. I will give my reasons for disputing the most generally accepted site of Leuce Acte when I come to discuss the features of the country through which the army marched from the bridges to Doriscus. ¹⁴

5. Having completed his preparations, Xerxes made the preliminary concentration of the troops from the eastern part of his Empire at Critalla in Cappadocia and marched to Sardis, where he passed the winter, and, says Herodotus (VII. 37), he began his march thence on the first approach of spring, 480 B.C. Herodotus' mistake about the eclipse makes it difficult to fix the

⁴ *History of Greece*, Vol. V, p. 49.

⁵ *Herodotus*, Vol. IV, p. 129.

⁶ *The History of Greece*, Vol. II, p. 283.

⁷ *The History of Greece*, translated by A. W. Ward, Vol. II, p. 247.

⁸ *The History of Greece to the death of Alexander the Great*, Vol. I, p. 287.

⁹ *Griechische Geschichte*, Vol. II, p. 671.

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¹⁰ *The Great Persian War*, p. 138.

¹¹ *Herodotus: The 7th, 8th and 9th books*, Vol. II, p. 164.

¹² *Die Perserkriege und die Burgunderkriege*, p. 210.

¹³ *Cambridge Ancient History*, Vol. IV, ch. 9.

¹⁴ *Vide infra*, para. 17.

date of departure. Considerations of supply make it probable that in this portion of the march, as in the case of the march through Thrace and Macedonia, the army kept in touch with the fleet, and the anxiety of the Persians for the safety of their ships, evidenced by the construction of the canal through the promontory of Mount Athos, makes it also probable that the fleet did not sail until the storms of spring were passed. It seems reasonable, therefore, to date the departure from Sardis as taking place after the vernal equinox, that is, towards the end of March. The distance from Sardis to the Asiatic shore of the Hellespont by the route along the coast is approximately 280 miles, a distance which could not have been covered in less than nineteen days, allowing for one day's halt in seven, a necessity in a long march. Actually in 1922 a weak Turkish division made the march from Smyrna to the neighbourhood of Chanak in nineteen days. But a large force moves more slowly than a small one, and judging from what took place during Xerxes' marches through Northern Greece, it is probable that there was one long halt or more during the progress of the army from Sardis to the Hellespont and that this march required more than a month. This would make the arrival of the first troops on the Hellespont take place about the end of April or early in May.

6. Further, it is reasonable to suppose that Xerxes would have arranged to enter Macedonia when the wheat was ready for harvest, that is, early in July. Xerxes' reply to Artabanus in VII. 50, whether the conversation actually took place or not, suggests that this is what happened, for Xerxes is represented as saying: 'We follow then the example of our fathers in making this march; and we set forward at the best season of the year; so, when we have brought Europe under us, we shall return, without suffering from want or experiencing any other calamity. For while on the one hand we carry vast stores of provisions with us, on the other we shall have the grain of all the countries or nations we attack; and our march is not directed against a pastoral people, but against men who are tillers of the ground.'

Mr. J. A. R. Munro places the date of the battle of Thermopylae either in the third week of July or in the third week of August, and gives good reasons, with which as will be seen I agree, for preferring the later date.¹⁵ If the battle of Thermopylae was fought in the third week of August it is difficult to put the advance from Doriscus before the third week in June and the arrival of the head of the army on the Hellespont before the first week in May, and, as Mr. Munro points out, it is more difficult, if the battle was fought in the third week of July, to account for the time between it and the battle of Salamis (September 23rd).

7. Herodotus' statements—

- (1) VII. 43. 'On reaching the Scamander, which was the first stream of all that they had crossed since they left Sardis, whose water

¹⁵ *Vide infra*, para 49.

failed them and did not suffice to satisfy the thirst of men and cattle . . .'

- (2) VII. 58. 'Having passed through the town which is called Agora, they skirted the shores of the gulf of Melas and then crossed the river Melas, whence the gulf takes its name, the waters of which they found too scanty to supply the host.'
- (3) VII. 108. 'The next city is Stryme, which belongs to Thrace. Midway between it and Messambria flows the river Lissus,¹⁶ which did not suffice to furnish water for the army, but was drunk up and failed.'

make it evident that the dry season was well advanced, and the fact that he lays stress upon the difficulties of water supply in connexion with the part of the march from the Hellespont to Doriscus seems to indicate that he had heard that they were exceptional and required special measures to deal with them.¹⁷

8. For reasons which I have given below ¹⁸ I do not consider that a prolonged halt by the whole or the greater part of the army on the Asiatic shore of the Hellespont to have been possible, and, even if as long as a month was spent at Doriscus in completing the organisation of the army and we fix the date of Thermopylae as early as the third week in July, the arrival on the Asiatic coast of the Hellespont could not have been earlier than in the first half of April, and was more probably some weeks later. In either case the dry season would have set in. The problem which confronted Xerxes' commanders was then to get the army from the Scamander, the last important source of water supply on the Asiatic side, to the Hebrus, the first good source of water supply on the European side. The distance from the Scamander to the Asiatic end of the bridges near Abydos is 23 miles; from thence to the Melas it is 46 miles; from the Melas to Aenos is 47 miles, and on to Doriscus 18 miles; a total distance of 134 miles, or not less than seven marches. The factors which affect the marching of troops when tactical considerations have no importance—and in this case they had none, as the whole of the country between the Scamander and the Hebrus was under Persian control—are the nature of the country and the facilities of supply, more particularly of water supply. I traversed the route in October 1922, that is, at the end of the dry season, but all the information that I could gather was to the effect that there was no material difference in the state of the rivers and streams between May and November. Thanks to the courtesy of the General Staff of the War Office I have been able to check my impressions with the information contained in a number of official reports made at various seasons of the year between the years 1905 and 1920.

¹⁶ The Lissus enters the sea about 20 miles west of Doriscus and is not shown on my map. It is only mentioned here as confirming the fact that the march took place during the dry season.

¹⁷ Masan, Vol. 1, Part 1, p. 32 note, mentions that there are fifteen rivers between the Hebrus and the Spercheios, not one of which is recorded to have failed.

¹⁸ *Vide infra*, para 10.

9. Before dealing with these and my own observations let me quote Herodotus' description of the march and of the route taken. He says:

VII. 43. 'On reaching the Scamander, which was the first stream of all that they had crossed since they left Sardis whose waters failed them and did not satisfy the thirst of men and cattle, Xerxes ascended into the Pergamus of Priam, since he had a longing to behold the place. When he had seen everything and inquired into all particulars, he made an offering of a thousand oxen to the Trojan Athene, while the Magians poured libations to the heroes who were slain at Troy. The night after, a panic fell upon the camp, but in the morning they set off with daylight, and skirting on the left hand the towns of Rhoetium, Ophryneum and Dardanus, which borders on Abydos, on the right the Teucrians of Gergis,¹⁹ reached Abydos. Arrived there, Xerxes asked to look upon all his host, so, as there was a throne of white marble upon a hill near the city, which they of Abydos had prepared beforehand by the king's bidding for his especial use, Xerxes took his seat upon it, and gazing thence upon the shore below beheld at one view all his land forces and all his ships.'

10. This account makes it easy to identify the route along the Asiatic shore of the Hellespont as I have marked it on my map. But it leaves the impression, which has been accepted by most historians, that the army halted on the Scamander together and moved forward together by one route to the neighbourhood of Abydos, where it again halted together under the king's eye. But this would have been utterly impossible even for an army of the size which I have indicated below as probable.²⁰ In August 1914 the two corps of the British Expeditionary Force, exclusive of the cavalry division, occupied an area of approximately 20 square miles in their first area of concentration, south of the fortress of Maubeuge. Owing to the fact that the motor lorries, the transhipment of which from the English ports was a long process, did not arrive until after the troops, these were placed as close together as possible, so that they could draw their supplies from the railway with their own horse transport. These two corps numbered 72,000 men and 22,000 horses, and at the battle of Mons they occupied a front of 38 miles. Making every possible allowance for the difference between a Persian host in 480 B.C. and a British army in A.D. 1914, it is, I suggest, impossible that a Persian army of 210,500²¹ men could have been camped in an area of a few square miles and then supplied in summer-time with sufficient water for men and animals.

11. Herodotus says (VII, 201) that on the arrival of the army opposite the pass of Thermopylae, 'King Xerxes pitched his camp in the region of Malis called Trachinia,' and Rawlinson²² shows on his plan of Thermopylae

¹⁹ The Teucrians of Gergis inhabited the hills between Lampsaenus and the Scamander. Cf. Rawlinson, Vol. III, p. 263 note.

²⁰ *Vide infra*, para. 21.

²¹ 150,500 combatants and 60,000 non-combatants. *Vide infra*, para. 21.

²² Vol. IV, p. 202.

the camp of Xerxes as occupying a space of one square mile near Trachis, which is an absurdity. Grundy suggests that the 'Persian encampment would seem to have stretched from the river Melas or thereabouts to the entrance of the west gate of the pass,'²² which would give a depth of rather more than three miles. The Persian army spent at least eight days at and in front of Thermopylae (Herodotus, VII. 201-38), and I suggest that considerations of water supply alone must have caused it to extend at least as far as the left bank of the Spercheios, some seven miles from the western exit of the pass of Thermopylae. It is necessary in studying Herodotus' account critically to remember that a large army cannot be camped round one place, that for convenience of supply it must cover a considerable area, and that the deployment for attack of a large body of troops, whether from camp or from column of route, takes a long time.

12. We must not then conceive of the Persian army as arriving together on the Scamander and as marching forward thence as one body to Abydos for the crossing. What I believe happened was that each division of the army on arriving on the Scamander halted on the river for two nights and the intervening day to fill up with water²³ and then advanced to the bridges. Herodotus' description (VII. 44) of Xerxes' review of his whole host from a marble throne set on a hill above Abydos is a picturesque exaggeration. What probably happened was that Xerxes watched the royal troops below him march towards the bridges, but it would, I suggest, have exhausted his patience to have seen much more than that body defile past him. It is out of the question that the whole army should have been halted together before the crossing in the country immediately round Abydos, which could not have supplied it with water even for one day.²⁴

13. I come now to Herodotus' description of the crossing. He says (VII. 55-56):

'the foot-soldiers with the horsemen passed over by one of the bridges, that which lay towards the Euxine, while the sumpter beasts and the camp-followers passed by the other which looked on the Aegean. Foremost went the ten thousand Persians, all wearing garlands upon their heads; and after them a mixed multitude of many nations. These crossed upon the first day.

'On the next day the horsemen began the passage, and with them went the soldiers, who carried their spears with point downward, garlanded like the ten thousand; then came the sacred horses and the sacred chariot; next came Xerxes with his lancers and the thousand horse; then the rest of the army. At the same time the ships sailed over to the opposite shore. According to another account, however, which I have heard the king crossed the last.

'As soon as Xerxes had reached the European side he stood to

²² p. 203.

²³ *Vide infra*, para. 21.

²⁴ For the amount of water required *vide infra*, para. 21.

contemplate his army as they crossed under the lash. And the crossing continued seven days and seven nights without rest or pause.' ²⁸

14. Of the forward march from the bridges Herodotus gives the following account :

VII. 58. 'So Xerxes despising the omens marched forward, and his land army accompanied him. But the fleet held an opposite course, and sailing to the mouth of the Hellespont, made its way along the shore. Thus the fleet proceeded westwards, making for Cape Sarpedon, where the orders were that it should await the coming of the troops; but the land army marched eastwards along the Chersonese, leaving on the right the tomb of Helle, the daughter of Athamas, and on the left the city of Cardia. Having passed through the town which is called Agora, they



FIG. 1.—SITE OF THE TWO BRIDGES.

skirted the shores of the Gulf of Melas, and then crossed the river Melas, whence the gulf takes its name, the waters of which they found too scanty to supply the host. From this point their march was to the west, and after passing Aenos, an Aeolian settlement, and likewise Lake Stentoris, they came to Doriscus.'

15. It is not possible to fix the route eastwards along the Chersonese from this description with such certainty as that along the Asiatic coast. As to the site of the bridges there can be little doubt, for the small cove just south of Nagara lighthouse and the larger one north of Maidos are the only places immediately opposite to each other on the Narrows with easy access and exit. I have shown on Fig. 1 what I believe to be the site and arrangement of the two bridges. Herodotus estimated the width of the Hellespont opposite Abydos at 7 stades (VII. 34) about 1400 yards. According to the latest Admiralty chart this is the width at its narrowest point between Chanak and

²⁸ For further comments on this passage, *vide infra*, para. 44.

Kilid Bahr, the width at the narrowest point opposite Nagara point is 2260 yards. At these narrowest points there are no suitable landing places on the European side for two columns, one of troops, the other of transport, which was, Herodotus says, the manner of the army's march, and was, as I hope to show, an indispensable method of progress.²⁷ Therefore it seems to me that the bridges must have run from a point on the Asiatic side just south of Nagara point, the northern of the two bridges into the head of the little bay north of Maidos, the southern into the south end of that bay. At each of these points there is a good landing place. This is confirmed by the number of ships used in the bridges, 360 for the northern and 314 for the southern (VII. 36). The beam of the trireme of the period at the deck level at the waist was, according to Gaser, 18 feet. 360 vessels of this size would have been touching side by side across the narrowest part from Nagara, an impossible arrangement in the strong current of the Hellespont; and this site for the bridges would not account for the difference in the number of vessels in the two bridges. The width of the Hellespont from a point just south of Nagara into the head of the Maidos-bay is 4220 yards, this distance would be filled, allowing for the landing stages, by 360 vessels of 18 feet beam with 16 feet between each ship. The distance from the same point on the Asiatic side to the southern end of the bay is 3700 yards, which would be filled by 314 vessels of 18 feet beam with 16 feet between them. My suggested site for the bridges then allows of an identical arrangement of the vessels and accounts for the difference in the number of ships employed. As Grundy points out, it is evident from VII. 36 that the two bridges were not parallel, and it would appear that the vessels of each bridge were anchored head on to the current which makes a sweep round Nagara point.

16. The European end of the bridges was, then, in the cove north of the modern Maidos, and the road ran thence for about one mile north-east at which point it forks. I have but little doubt that Xerxes' army took the southern road; for the northern road to Berghaz would have involved either a wholly unnecessary detour eastwards from Berghaz to reach Callipolis, the modern Gallipoli, or a continuance of the march by Sheitan Keni and Yeni Keui, which would have involved a steep climb up to Sheitan Keni and the use of a track up to Yeni Keui so narrow as to be impossible for a column of troops and of transport marching abreast. A further reason in favour of the southern route is that at Callipoli there is a good supply of water from springs and wells, sufficient to-day to supply a population of about 14,000 persons, and this is the only place with any permanent water supply in summer between Maidos and Bulair. The eastern half of the Peninsula is both the most hilly and least supplied with water. The one reason why I have any hesitation in fixing definitely the southern route as that followed by Xerxes' army is that it is strange that Herodotus should not have mentioned Callipolis, if the army marched through that place, since it is now, and must always have been, the best port on the Hellespont. In spite of this the arguments in favour of the

²⁷ *Vide infra*, para. 27.



FIG. 2.—ROUTE OF THE PERSIAN ARMY.

march having passed through Callipolis appear to me to be overwhelming. The point is of secondary importance, as both roads wind through steep hills and either constitutes a military defile. North and east of Callipolis the country opens out into a slope of rough grass, with some cultivated fields, about one mile in width and three miles in length. Here it would have been possible for a considerable number of troops to spread out in bivouac, but, as I suggest below, it is not conveniently placed for a long halt.²⁹ Three miles north-east of Callipolis the road again enters a defile, and at the southern end of this defile, on the top of the hill marked 433 on the attached map, I place the tomb of Helle, which according to Herodotus the column passed on its right. There were in 1922 traces of what I took to be an ancient building on the top of this hill, and this appears to me to be a more natural site for a memorial to the God-mother of the Hellespont than that selected by Rawlinson, who places it on the hill above Pactya, the modern Doghan-Arsalan.³⁰ This hill is some two miles from the coast, which here has begun to open out into the Propontis, the modern Sea of Marmara. From the top of hill 433 the ground falls cliff-like into the north-eastern end of the Hellespont, and a monument there would be visible to all ships entering or leaving the Propontis. The route of the army passed thence by Cardia (the modern Bulair), through Agora, the modern Hexamili, to the valley of the Melas. I am convinced that the present main road from Bulair to Kavak (Melas) did not and could not have existed 2000 years ago. The Melas, the modern Kavak Dere, brings down in the rainy season much silt from the hills, which has gradually pushed out the coast line on both sides at the mouth of the river, and created numerous sand-banks at its mouth. The Admiralty report of 1917 describes the eastern coast of the Gulf of Xeros as 'difficult to approach on account of shoals all the way to the Kavak river.' The ground shown in the attached map at the mouth of the Melas as marshy was in October 1922 dry and hard, though it may possibly be flooded and marshy in the rainy season. This ground is obviously alluvial, and I suggest that in 480 B.C. the coast-line was somewhat as I have indicated on my map by a dotted line, that Melas was on the coast and that the sea washed the foot of the hills just west of Agora (Hexamili). After passing Agora the line of march descended into the valley of the Melas, and this brings me to the question of the site of Lauce Acte.

17. This, Herodotus says (VII. 25), was on the Thracian coast. Grote puts it on the Hellespont,³¹ as does Curtius.³² These I take to be loose expressions for the south-western coast of the Propontis. Rawlinson,³³ with more precision, follows Scylax and puts Lauce Acte on the coast of the Propontis at Inje Burun not far north of Pactya (Doghan-Arsalan), which is the generally accepted site. But it is clear that this or any other site on the Propontis would have been useless as a supply depot for the purpose of the Persian army. To have reached Inje Burun, from the Cardia-Melas road would have entailed a climb over a spur, 900 feet high, of the modern Tekfur Dag, and a scramble

²⁹ *Vide infra*, para. 25.

³⁰ Rawlinson, Vol. IV, p. 44, note 6.

³¹ Vol. V, p. 19.

³² Vol. II, p. 288.

³³ Vol. IV, p. 22.

down to the coast, which at this point is waterless in the dry season. It would be difficult to imagine a more inconvenient site for a depot. I suggest that there was more than one *Leuce Acte* (White Strand). White strands are not an uncommon feature either of the coast of the Propontis or of the Gulf of Melas, and strands, more especially when they were near a good water supply, were precious to the sailors of 480 B.C., who habitually hugged the coast and needed places to careen their ships. It is not improbable that the name *Leuce Acte* was as common amongst the sailors of the Aegean of that period as the name *Hythe* was amongst British sailors. There is, or was in October 1922, a very definite white strand at the mouth of the Melas, and it seems certain that such a strand existed in 480 B.C. The mouth of the Melas is just such a place as would be an admirable site for a depot of supplies for an army marching from the Scamander to the Hebrus. It is midway between the two rivers. Near such a site would be the best supply of water to be found on the route, and it would be the natural place to accumulate stores from the fertile country lying north of the Kuru Dagħ and west of the Tekfur Dagħ, while, if my suggestion is correct that the shoals now lying off the mouth of the river are the result of the accumulation of silt during 2000 years, there would have been in 480 B.C. no difficulty in adding to the stores drawn from the surrounding country by ship-loads of grain. I place the *Leuce Acte* of Herodotus, then, at or near the mouth of the Melas.

18. The line of march beyond the Melas is settled by Herodotus' mention of Aenos and Lake Stentoris (VII. 58). The only possible route from the Melas to Aenos is that through the Kuru Dagħ, which I have marked. Beyond Aenos the route must have passed west of the Lake Stentoris, since the slopes of Chatal Tepe fall cliff-like into the southern shore of the lake. I suggest that, as in the case of the Melas, so in that of the Hebrus, the silt from the river has in 2000 years pushed the mouth out into the Aegean, and that the coast-line was in 480 B.C. probably as I show it on the map. The march would then have wound between the lake, the shore of the gulf and the river up to the first point of passage over the latter, near the present ferry, and thus have reached Doriscus. Doriscus was a fort built by Darius to command the passage of the Hebrus, and I suggest that it was at what was then the head of the bay near the site of modern Ferejik.

Such then are my suggestions for the route followed by the Persian army. In each case, where any modification would have been possible, I have chosen that which would have lightened the difficulties of the march.

19. Now let us survey this route through the eyes of a Persian officer charged with the arrangements for the march. The distance from the Scamander to the Hebrus is 134 miles, seven marches. The first consideration would be supply. That of food need have presented no difficulties, with a large dump of supplies at *Leuce Acte* at the mouth of the Melas. It would have been easy for the troops to carry three days' supply of parched grain, to fill up their bags with a further three days' supply at *Leuce Acte*, while the seventh day's supply could have been obtained at Doriscus, where there was a supply depot (Herodotus, VII. 25). The only food to be transported would

be that for Xerxes and his Guard and for his principal officers. The country to be traversed could supply grazing for camels and other transport animals; the horses could, like the men, have carried three days' forage and renewed their supply at Leuce Acte.

20. The problem of the water supply was far more difficult. We have had some recent experience of the water requirements of troops in hot weather and of the difficulties of meeting them. In the battle of Gazo-Beersheba, which began on October 31, 1917, Allenby's striking force for that battle, the force which was to attack Beersheba, comprised 56,000 men and 26,000 animals, and it was calculated that the minimum daily requirements in water of this force was 400,000 gallons. To provide this very elaborate preparations were made. A dam was constructed capable of holding 500,000 gallons, special arrangements were made for the transport of water by camel, the pipe-line which brought water from Egypt across the Sinai desert was extended and new wells were dug.³² Even with this provision water could only be found for the force for some thirty-six hours, and the future success of the operation hung upon finding the wells of Beersheba intact, as fortunately they were.

21. The Scamander was the last large source of water supply available for the army before the Hebrus was reached, and by use of a formula, commonly used in military reconnaissance to estimate water supply, which gives sufficiently accurate results for practical purposes, I calculated that the flow of the river in October 1922 was in its lower reaches at the rate approximately of 50,000 gallons an hour. The course of this river has changed in 2000 years,³⁴ and it is possible that the supply of water in it may have changed also, though it is unlikely that the yield of the springs from which it derives should have changed much. In any event I suggest that, at any period of the dry season, the resources of the Scamander and of the adjoining springs of Bunarhashi would have been taxed to produce from 300,000 to 400,000 gallons of water a day for a number of days in succession, and to have furnished in addition sufficient water to make good by transport the deficiencies in the remainder of the route. A river, unlike a reservoir, cannot be drained to the last drop, and its water is flowing away while it is being drawn upon. Therefore not more than about one-third of its total content can be made available, without arrangement for storage, for watering an army at any given time. My calculations led me to the conclusion that it would be unsafe, after making due allowance for waste and fouling, to reckon upon the Scamander and the springs being able to supply the needs in water for an army marching from that river to the Hebrus larger than 210,000 men and 75,000 animals, and this after making a very liberal allowance for the smaller requirements of Asiatic men and animals.³⁵ The river would, I think, have sufficed for about one-fifth

³² Wavel, *The Palestine Campaigns*, pp. 102-4.

³³ *Ido* Leake, *Tour in Asia Minor*, p. 290.

³⁴ On the Palestine scale the daily requirements in water of 210,000 men and 75,000 animals would be 1,300,000 gallons of

water a day. British experience on active service is that a horse requires an average of 8 gallons a day. Small Asiatic horses would need less. Camels require 10 gallons a day, and after three or four days' abstinence will drink as much as 20 gallons at one time. *Vide Animal Management*, War Office, 1908.

of this number to have halted successively on it from the afternoon of the day of arrival until the morning of the next day but one.^{36a} This would allow time for each part of the army to organise its columns for the crossing and to fill up with water.

22. For the deficiencies of the water supply on the remainder of the route must have been serious. The first march was, I suggest, made from the left bank of the Scamander to the Koja Chai, a stream which flows into the Hellespont at the modern Chanak, just below the ancient Abydos. This stream could, if pools had been created by damming it up in places, have in the dry season provided sufficient water for the animals, but little would have been available for men, for whom some water, but a limited quantity, would have been obtainable from the springs of Abydos. From the Koja Chai below Abydos a march of 22 miles would bring the head of a column to the valley of the Karakova Dere (Aegospotami). This stream, like all the others in the peninsula, is normally bone-dry from May till late October. The rainy season supplies the peninsula with sufficient water to allow of the cultivation of the valleys and an early harvest. In most of the valleys water is obtainable by boring, but this was beyond the resources of Xerxes' army. The high lands are quite waterless, and the small scattered villages obtain their water from wells and springs, which are no more than sufficient for their needs. Only in two places, Maidos and Gallipoli, is there a good permanent supply of water during the dry season. Maidos, which lay outside the route of Xerxes' march, was the chief source of water supply to the Turkish forces opposing us in the peninsula in 1915. Gallipoli, through which I suggest that Xerxes' army passed, has springs and wells, which, as I have said, maintain a population of

^{36a} The Troad, unlike the Gallipoli peninsula, has been frequently explored by historians and archaeologists, and reports extending over a period of nearly 150 years are available. These confirm generally my estimates of the water supply. The most detailed and useful for my purpose is that of Dr. P. W. Forchhammer (*Geographical Journal*, 1st Series, Vol. XII, 1842), who had the advantage of having a naval survey party at his disposal. Dr. Forchhammer says, 'Only two of the rivers of the plain contain running water in the driest season of the year, that is, in the months of August and September. It may happen in a very dry season that the bed of the Menderes dries up, as seems to have been the case when it was seen by Dr. Sibthorpe in September 1794, but the inhabitants assured me that this river at all times, even in the heat of summer, has a small shallow stream of water, and that was certainly the case when I saw it in August.' A small shallow stream of water would obviously not supply water for a large army. When

I saw the Menderes in October the average width of the stream below Buzarbaschi was 20 feet and the average depth 6 inches. The other river to which Dr. Forchhammer refers is the Buzarbaschi Su (the Homario Scamander), which is a narrow stream produced by the overflow of the forty springs of Buzarbaschi. These springs furnish a constant supply of good drinking water. It seems to me possible that the army passed through the Mount Ida range by the pass which comes out at the modern Ezine, and that when Herodotus (VII. 42) speaks of it holding Mount Ida on the left hand, he is referring to the western part of the range, the modern Kars Daghi. The army on reaching the Menderes opposite Ezine would not have found sufficient water in the river and therefore, instead of marching straight across to Chanak (Abydos), made the detour down the valley to get below the Buzarbaschi springs. These springs probably supplied most of the drinking water, while the Menderes was used mainly for watering the animals.

14,000, but there is not now, and could not have been in 480 B.C., any facilities for watering a large number of animals. On the second day's march then from the Kaja Chai to the Karakova Ders there would have been no water for the army save such as it carried with it. On the third day the marching column would have passed through Gallipoli and reached with its head the neighbourhood of Cardia (Bulair), where there are some springs and wells.²⁶ The fourth day's march would have been, I suggest, a short one, of about ten miles to the Melas for the head of the column, to allow the whole of each successive column to close up and draw water and supplies. The Melas when I saw it in October 1922 consisted of a number of shallow pools connected by a narrow stream, and I suggest that it could have supplied each successive column with sufficient water for one day for men and animals, but that there would have been little to spare to carry forward. Between the Melas and Aenos, two marches, there is no water, except from a few occasional wells, either for men or animals.

23. The water arrangements for animals on the march could then have taken some such form as the following:

Animals could have been watered on the morning of the first day in the Seamander, and the evening of the first day and the morning of the second day in the Kaja Chai. On the third day there would have been no water for animals at all. On the fourth day they could have been watered in the evening in the Melas, and on the morning of the fifth day before marching. On the sixth day there would have been water only for the animals at the head of the column which reached Aenos. Thereafter water difficulties cease. Such an arrangement, while entailing considerable suffering on the horses, would have been just possible.²⁷

24. As to water for men, if the supply obtainable at Callipolis and Bulair could have been made to suffice for one day, which is possible, though doubtful, then four days' water would have had to be transported with the troops. Allowing for leakage from water-skins and evaporation, the minimum daily ration for 210,000 men could hardly have been less than two quarts per man per day, not an over-generous allowance for men marching in hot weather, whose food is dry grain. This would have entailed the transport of 420,000 gallons of water. A gallon of water weighs 10 pounds. Therefore for such a march transport would have been required for 4,200,000 lbs. weight of water. A good camel will carry 300 lbs. of water, therefore, allowing a proportion of spare camels, 15,000 camels would have been required, and these moving continuously in single file would occupy 75,000 yards of road space, or 42 miles. Allowing for the fact that the transport of food and forage had been much reduced by the preparation

²⁶ A War Office report dated February 1920 on the route from the Melas through Callipolis says of its resources: 'Water scarce—supplies nil except at Gallipoli.'

²⁷ Professor Filon, F.R.S., has made the interesting suggestion that troughs for watering horses might have been erected in the open ground about Gallipoli and in

the open ground at the northern end of the salt marsh, north of Eski Tuzla and midway between the Melas and Aenos. This is a possibility which would have overcome some of the difficulties of watering the horses, the water troughs being kept filled by convoys from the Melas.

of depots, such an accumulation of transport for the conveyance of water would have been a possibility, but no more than a possibility, and this seems to me to be another indication that the figure I have mentioned is the probable limit to the size of the Persian army which crossed from Asia into Europe. All this large store of water could come only from the Scamander and the springs of Bumarbaahi, which would be a reason why the river did not suffice for the needs of the army.

25. So much then as to water supply. I come now to the nature of the road. From the European end of the bridges it winds at once through steep hills and affords just room, and no more than just room, for a double column, one of troops and one of transport. The road switchbacks up and down and would have been fatiguing for both men and transport animals. This has guided me in fixing the length of the marches, which could not, I think, have been exceeded; indeed for loaded camels in such country they are on the side of length. Until Gallipoli is reached there is no space in which a column of troops could open out to bivouac, and if, as I suggest, this open space was reached in the middle of the third march there would have been no occasion for so using it. In any case after leaving the open cultivated ground north of Gallipoli the road again enters a defile, from which it emerges into the valley of the Melas. To have closed up the columns to halt in bivouac about Gallipoli would have wasted time, since they would have had to reform in column of route to pass through the defile east of Gallipoli, and every delay would mean a further strain upon the water supply, while there are no facilities for watering a large number of animals at or near Gallipoli. Near the mouth of the Melas I have suggested was a supply depot and a fair supply of water, in short a good half-way house for a bivouac. From the valley of the Melas to Aenos the defile becomes even more pronounced, while for 13 miles beyond Aenos it is still a defile, though of a different character, for it passes first between Chatal Tepe and the Hebrus,²⁸ and then between Lake Stentoris and the river. Our Persian officer had then to consider how to march the army through a defile 110 miles long, with one suitable place for a bivouac about half-way. This march had to be made through a country insufficiently supplied with water for the needs of a large force, and the supply of water furnished by the Scamander was insufficient to provide both for the needs of the whole army during a long halt and for its needs during the march. Therefore the army had to move as quickly as possible from the Scamander to the Hebrus, where the water was plentiful.

26. It has been suggested that the building of the bridges was a magnificent gesture on the part of Xerxes intended to impress the Greeks, but by no means a necessity, since the Persian army could have been readily transported across the Hellespont in ships. But owing to the limited number of possible places of embarkation and disembarkation, such an operation would have taken far longer than marching across the bridges, while the shipment of the number of transport animals required and of the water needed would have been almost

²⁸ Or probably, in 480 B.C., the sea.

impossible. The construction of the bridges was, in my judgment, a military necessity.

27. There are two important points in Herodotus' account of the crossing the real meaning of which has escaped the historians, because they have not examined the ground. The first is that combatant troops crossed by one bridge and the transport by another; that is to say, that from the bridges to the plain of Doriscus the army marched in two parallel columns, one composed of troops, the other of transport. This is a very unusual arrangement for a march, and it is not one which Herodotus would be likely to have invented, if there was a military reason for the arrangement. I suggest that there was. The army was about to enter a long defile very insufficiently provided with water for its needs. It was necessary, owing to the nature of the defile, for each column to halt in its march formation, except in the valley of the Melas. Therefore the easiest way in which the troops could have been supplied with water while halted was from pack animals marching parallel with them. The country was already under Persian control and no military precautions were necessary. There was, therefore, no military objection to such an arrangement. There are in the course of the defile some six places in which it would be no more than possible for a column of troops in fours and a column of pack animals in single file to move abreast, but with these narrow places to negotiate it would have been very inconvenient to bring up at the halt water carried by pack animals in the rear of the columns of troops, since troops bivouacking necessarily occupy a greater width than troops marching. Over such a road the method of having a parallel column of transport would have been much the most convenient method of supplying water, both during marches and at halts.

28. The second point has reference to the duration of the crossing. Herodotus says 'the crossing continued during seven days and seven nights without rest or pause.' Now as columns of troops and transport had to pass through a long defile in which opening out was only possible at two places, one of which, that near Gallipoli, would have been of little service, and as from each of these places the columns had again to enter a defile, it is impossible that movements across the bridges should have been continuous during seven days and seven nights. To have passed troops and transport across the bridges in that way would have produced hopeless congestion in the Gallipoli peninsula, such as would have made supply impossible, since the first troops to cross must have halted after some eight hours' marching to rest and prepare food, and each successive body must have done the same. But it does seem to me to be probable that movement across the bridges did go on for seven days and seven nights, and that Herodotus hearing of this assumed that movement was continuous.

29. To make this point clear it is necessary to devise an organisation for the 210,000 men and 75,000 animals, the probable maximum number of which the conditions of water supply admitted. I agree with Mr. Munro that the very detailed description of the army which Herodotus gives in VII. 61-87 could not have been invented and is, in fact, what we would to-day call an

order of battle. This makes it clear that the organisation of the Persian army followed generally that which all military experience has shown to be necessary for effective command. The cavalry was organised in three brigades (VII. 88); the infantry was organised in tens or sections, hundreds or companies, thousands or battalions, and ten thousands; the whole being divided into six higher commands (VII. 81-82) with the exception of the 10,000 Immortals, who corresponded to the modern Guard troops and were under the command of Hydarnes.

30. I suggest that in his account of the organisation of the infantry Herodotus had made a jump from Chilia or thousands to his Myria or ten thousands. It has been a general principle of military organisation from quite early times that in the higher commands one man cannot conveniently control more than five or six units, while it has been found extravagant of staff to give a commander less than three units to manage. This has not always applied to the lower formations, and for a long time in the British army there were eight and sometimes ten companies in a battalion, but it is asking much of one commander to give him direct control of ten battalions.²⁹ In modern armies a division is usually composed of three brigades and the divisional troops, an army corps of two or three divisions and the corps troops. It seems to me then that Herodotus, writing without any experience of the problems of military organisation, has omitted a brigade organisation and that his Myria were really brigades.

31. For the effective command of an army of such a size as I have mentioned, an organisation into six divisional commands would, I think, be a necessity; but it would, I suggest, also be a necessity that these six divisions should be divided into not less than eighteen or more than thirty brigades. Now in his catalogue of the army, Herodotus gives a number of national contingents each under an Archon, and twenty-nine of these Archontes are named. My suggestion is that the commands of the Archontes were brigades with a varying combatant strength of from 3000 to 5000 men. It seems unlikely that these tribal or national contingents conformed to any rigid establishment, and in any event there must have been considerable wastage during the long marches to the Hellespont.

32. The organisation of these twenty-nine brigades into six divisions would be in accordance with military requirements and is in accordance with Herodotus' mention of the six higher commanders in VII. 82 and VII. 121. Further, I agree with Mr. Munro and Dr. Macan that the advance from Doriscus

²⁹ I have found it difficult to believe that the *legatus* of the Augustan legion exercised direct command over each of his ten cohorts, of his *velites*, and of his auxiliaries. The Roman legion acted tactically in three lines, a relic of the division into *hastati*, *principes* and *triarii*, and for effective action in battle concerted action by each line was necessary. It is difficult to understand how this concerted action could

have been obtained unless each line had a commander. I am therefore disposed to think that the functions of the tribunes were normally more important than the historians indicate, and that the *legatus* exercised his command through three of the legion's tribunes, a commander of the light troops, and one or perhaps two prefects of auxiliaries; i.e. he had in battle to deal with five or six subordinate commanders.

in three columns, and the fact that there were three cavalry brigades, suggest a final organisation into three army corps each composed of a cavalry brigade and two divisions. It would be not unnatural for each of the corps to be commanded by the senior divisional general, and it may, I think, be assumed that Xerxes with his entourage and the Ten Thousand marched with the corps which moved along the coast.

33. My suggested organisation of the combatant troops then is :

3 Cavalry brigades, each 3500 strong	10,500
6 Infantry divisions, each of four or five brigades, the approximate strength of a division being 20,000	120,000
The Immortals	10,000
Xerxes' personal escort, Libyan and Indian charioteers and Arab Camelry (VII. 86), whom we may call G.H.Q. troops	10,000

A total of 150,500 combatants.

If to this total is added 25,000 as a reasonable number of the European contingents joining the army at Doriscus (VII. 185), a figure is reached which approximates closely to Mr. Munro's 180,000, which is about as large a force of combatants as could well have been supplied during the marches through Greece.

34. Mr. Munro, being anxious to keep Herodotus' Myria, has made the ingenious suggestion that Herodotus' order of battle was, in fact, an army list of the whole Persian army of which he had obtained a sight. He argues very justly that Xerxes could not have taken the whole military power of Persia into Greece, leaving his Empire without military protection, and suggests that the Persian army was organised into six army corps and that three of these corps formed the army of invasion. I have endeavoured to fit my estimate of numbers into the scheme of organisation which Herodotus gives by halving the size of the commands of the Archontes and making those infantry brigades. Mr. Munro reaches much the same result by halving the whole army.⁴⁰ It is not for my purpose a matter of importance whether my conjecture or Mr. Munro's is the more correct, since we are in general agreement as to the total number of combatants.

35. It remains to account for the number of followers and the amount of transport which accompanied the fighting troops. I have suggested that some 15,000 camels would be necessary to transport water from the Scamander to the Hebrus. After the army left the Hebrus, water supply would have ceased to be a serious problem, and the animals which had been used to transport water would have been available to carry food between the depots and the supplies landed from the provision ships (VII. 184). As I have indicated,

⁴⁰ For an elaboration of Munro's argument in Chapter IX of the *Cambridge Ancient History* vide his paper in Vol. XXII of the *J.H.S.*, 1902, p. 204.
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the establishment of a supply depot at Leuce Acte would have much reduced the amount of transport required for supplies during the march from the Scamander. But that there was additional transport is sufficiently indicated by Herodotus' account of the privileges of the Ten Thousand. He says (VII. 83), speaking, it would appear from the context, of the Ten Thousand :

'Of all the troops the Persians were equipped with the most magnificence, and they were likewise the most valiant. Besides their arms, which have been already described, they glittered all over with gold, vast quantities of which they wore about their persons. They were followed by litters, wherein rode their concubines, and by a numerous train of attendants handsomely dressed. Camels and sumpter beasts carried their provisions, apart from that of the other soldiers.'

36. If such were the privileges allowed to the royal guard, it is probable that all commanders from chiliarchs upwards had some retinue and private transport, which in the case of Xerxes himself and his princes would have been considerable. There must also have been some reserves of equipment. The length of my army of 150,000 combatants in continuous column of route would be 102 miles, and I have suggested that 43 miles of the transport column would be occupied by water transport. An allowance of 59 miles of transport for the remaining requirements of the army is not excessive. Thus the column of transport would be approximately of equal length to that of the column of troops. As this 59 miles of transport would probably have been composed of a miscellaneous collection of animals, most of them of less size than camels, we may estimate the transport requirements of the army at 35,000 animals exclusive of water transport. We have put the cavalry at 10,500, we have in addition the animals of the officers' chariots and of the chariots of the Libyans and Indians and the Arab camelry. The total number of animals accompanying the army could not then have been less than 75,000.

37. Grote⁴¹ has successfully disposed of Herodotus' suggestion (VII. 180) that the number of followers was about equal to the number of the combatants, but taking into account the number of transport drivers required, officers' servants and attendants on the chiefs, it must have exceeded one-third, say 60,000. It is only possible to guess at the number of combatants who joined the army at Doriscus from Thrace, but taking rumour to have exaggerated these in the same proportion as it exaggerated the troops from Asia, then Herodotus' 300,000 (VII. 185) become 25,000. These 25,000 with, say, 8000 followers, were probably distributed amongst the commands of the Archontes from Asia, since Herodotus mentions no commanders of them by name. The army which crossed the Hellespont did not then exceed, in my judgment, 150,500 combatants, 60,000 followers and 75,000 animals, this estimate being based on considerations of supply, nor the number of combatants who marched from Doriscus to Thermopylae 175,500.

⁴¹ Vol. V, p. 46.

38. I come now to a further check upon this estimate, namely, the time required for the movement of such an army from the Scamander to the Hebrus. The problem, being as I have said to get the army from the Asiatic side of the Hellespont where water was limited to the valley of the Hebrus where it was plentiful as quickly as possible, could have been best solved in the following way:—Taking Herodotus' order of march we will assume that the Ten Thousand began to cross at 5 a.m. on the first day of crossing. If the march discipline was reasonably good, a column of 10,000 infantry, allowing for some opening out which on a rough road must have taken place and for necessary intervals after the chariots of the commanders, would be approximately six miles in length.⁴² After about eight hours' marching it would be necessary for the head of the column to halt if only for the sake of the pack animals, which had to do seven consecutive marches preceded by a halt of only one day and two nights on the Scamander.

39. In this eight hours the head of the column starting from Koja Chai could have marched some 20 miles, that is to say, it would have reached the Karakova Dere. This in hot weather and over rough country would have been a good march. The tail of the column would then be about 14 miles⁴³ from the bridges, that is, near the Chamili Dere, and a halt for bivouac would then take place at 1 p.m. between the Chamili Dere and the Karakova Dere. I suggest that the halt for bivouac, that is, for rest and feeding of men and animals, would have required about ten hours. The Ten Thousand could then have been ready to resume the march at 11 p.m.

40. The first division of infantry, that is, another 20,000 men, could have begun marching from the Koja Chai at 5 p.m. on the first day, and at 11 p.m. the head of this would have been close on the tail of the Ten Thousand, and would have followed them without colliding for a further two hours, when it would have completed eight hours' marching and been obliged to halt for rest. The head of this column would then be at 1 a.m. on the second day on the Karakova Dere and its tail near Boghali.⁴⁴ Following Herodotus' order of march, the cavalry, three brigades as I suggest, could have started from the Koja Chai at 7 a.m. on the second day, and at 11 a.m. it would have reached Boghali just as the first division was resuming its march. Ten thousand cavalry occupy about the same road space as 20,000 infantry. Therefore the cavalry and each of the remaining infantry divisions would in its second march from the Scamander halt with its head on the Karakova Dere and its tail near Boghali, and each could start fourteen hours after the head of the preceding unit had begun its march.

⁴² A pre-war brigade of British Infantry 4000 strong occupied a distance of a little more than two miles of road space. The principal armament of the Persian army was spears. Men with spears would require a greater interval between sections of fours than men with rifles; the length of the

British rifle is 3' 8½". I have, I think, then, been conservative in putting the length of the column of the 10,000 at six miles.

⁴³ The length of the column being six miles.

⁴⁴ Length of column twelve miles.

41. We are now in a position to draft a march table for the army as follows :

Unit.	Starting-point.	Day and hour of start.
10,000	Koja Chai	5 a.m. 2nd day ⁴⁵
1st division	"	5 p.m. 2nd day
Cavalry	"	7 a.m. 3rd day
2nd division	"	9 p.m. 3rd day
3rd division	"	11 a.m. 4th day
4th division	"	1 a.m. 5th day
5th division	"	3 p.m. 5th day
6th division	"	5 a.m. 6th day

The number of what I have called G.H.Q. troops can only be guessed. Under this head I have classed Xerxes' personal escort. This would appear to have consisted of 1000 picked infantry and 1000 horse (VII. 41). To these must be added Xerxes' entourage. For it is hardly to be supposed that his chief courtiers, the priests, and the sacred chariot would have joined the transport column. I have also included in this body the Indian and Libyan charioteers and the Arab camelry (VII. 86). Chariots could only have moved slowly and at considerable intervals, and the camelry must have marched in single file. It would seem that this heterogeneous body of troops, whether it marched together or was distributed amongst the divisions, could not well have occupied less road space than two divisions. Two men in a chariot drawn by a pair of horses or wild asses (VII. 86) would, allowing the necessary intervals, occupy the same road space as 12 infantry. On this assumption the first part of the G.H.Q. troops could have begun crossing at 7 p.m. on the sixth day, the second part at 9 a.m. on the seventh day. The tail of this second part would then leave the Koja Chai at 1 p.m. on the seventh day, and at about 5 p.m. on that day would have been clear of the European end of the bridge.

42. That is to say, the crossing of a single bridge by an army of 150,000 combatants of the character of the Persian army, which after crossing had to march for seven days through a defile, would not have taken less than 132 hours. In these calculations I have allowed the Persian staff considerable experience in the arrangements of marches and for a higher standard of march discipline than the army probably possessed in 480 B.C. Since in such country checks and delays would be of frequent occurrence amongst partially trained troops, and these would have extended the time required for the marches materially beyond that which I have allowed, there would not seem to be much exaggeration in Herodotus' statement that the crossing took seven days and seven nights, even for an army one-tenth the size of that with which rumour in his day credited the Persians.

43. The fact that none of the historians who have examined Herodotus' account critically has, it would appear, himself examined the country between the site of the bridges and Aenos, nor had access to the accounts of any explorer who had done so, has caused them all to overlook the effect of the defile,

⁴⁵ The first day's march being that from the Scamander to the Koja Chai.

Grote is disposed to accept the statement that the crossing took seven days and seven nights as some confirmation of Herodotus' figures.⁴⁶ Busolt is disposed to ridicule the idea that not more than 45,000 men could have crossed in a long May day.⁴⁷ No one has stopped to consider what would have happened to a continuous stream of troops and transport entering the Chersonese.

It is, of course, true that 45,000 men could, by starting at dawn, have crossed the bridge by dark, if the leading troops could have opened out to bivouac when they reached the end of their marching powers; but as this was not possible, these leading troops would have had to march 26 miles through rough hilly country in hot weather. This, if barely possible for men, would have been impossible for pack transport. At the end of such a march the tail of the 45,000 would have been just clear of the bridge, and a halt of ten hours would have been necessary before the next party could start.

44. This brings me to a further point. It would seem that when the conditions of ground are appreciated, it becomes possible to reconcile apparent contradictions in Herodotus' account which have puzzled recent commentators. The description of the crossing in VII. 55 which I have quoted above⁴⁸ would appear, if read literally, to mean that the crossing took two days, while in VII. 56 it is said that it took seven days and seven nights. Then in VIII. 51 Herodotus says: 'Since the passage of the Hellespont and the commencement of the march upon Greece, a space of four months had gone by; one while the army made the crossing into Europe, and three while they proceeded on their march to Attica, which they entered in the Archonship of Calliades.' Munro⁴⁹ and Macan⁵⁰ both point out that the crossing is variously described as taking two days, seven days and a month, and the former suggests that perhaps the combatant troops passed in two days, the transport in seven and that the month includes a long halt about Abydos. As I have pointed out, conditions of water supply, in my judgment, preclude a long halt on the Asiatic side. Bury goes further than either Macan or Munro, and suggests that the crossing really took two days and that Herodotus added the seven days to give colour to his exaggerated estimate of the Persian host.⁵¹ These three commentators all seem to me to have supposed that a much larger number of men could have made the crossing in two days than was actually possible, and to have feared that the admission of the seven days would make the army impossibly large. I have endeavoured to show that this is not so.

45. I suggest that in VII. 55-56 Herodotus, knowing that the crossing took much more than two days, wrote somewhat loosely. He begins by giving the order of march in detail for the first two days and goes on, 'then the rest of the army.' My suggestion is that these words mean that the various tribal contingents followed in the succeeding days. When I was

⁴⁶ Vol. V, p. 40.

⁴⁷ Vol. II, p. 671, note.

⁴⁸ Para. 13.

⁴⁹ *Cambridge Ancient History*, Vol. IV,

p. 270.

⁵⁰ Vol. I, Part I, p. 77, note.

⁵¹ Vol. I, p. 286.

discussing this passage with Mr. Munro he made the attractive suggestion that on the first two days what may be called the royal troops crossed, and that Xerxes himself followed these, standing on the European side to watch the remainder crossing under the lash. This would be in general agreement with my suggested time-table, which allows of the crossing being made by the Ten Thousand, the cavalry and the 1st and 2nd divisions during the first two days.

46. I may here mention that my examination led me to the conclusion that the use of the lash on the European side of the bridge at least for the transport animals was a military necessity. The ground here begins at once to rise steeply, and the natural tendency of pack animals on feeling the slope would be to check. A check there would have been at once repeated on the bridge, where it would have led to crowding. It has long been a military practice to take measures to avoid checks and crowding on a military bridge, as this throws a great strain on what is a temporary structure. The Persians evidently understood this and took their precautions, so there is more in Herodotus' statement than a mere holding up of Persian methods to scorn, though perhaps he did not despise the opportunity for producing that effect.

47. The reconciliation of VIII. 51 with VII. 55-56 is a more difficult matter. My suggestion is that 'the passage into Europe' was intended by Herodotus to include the march to Doriscus and the halt there, and that the first of his four months comprises the period from the completion of the crossing to the beginning of the advance from Doriscus.²³ There must clearly have been a long halt about Doriscus, and it seems natural to date the three months for the advance into Attica from the end of that halt. The distance from Doriscus to Athens is approximately 550 miles. Now the powers of movement of armies did not vary greatly until first railways and then mechanical transport came into general use, and we find that in 1812 Napoleon had to march a very similar distance from the Niemen to Moscow. He began the passage of the Niemen on June 23rd, and entered Moscow on September 15th. The movement then took nearly three months. The Emperor's army was larger than that which I have assigned to Xerxes, but he had more roads at his disposal, had wheeled in place of pack transport and less difficult country to traverse than had the Persians. Three months is then the time which on military grounds one would expect the march from Doriscus into Attica to have taken. Napoleon had to fight at Smolensk, Lubino and the Borodino, but these three battles did not delay him more than Xerxes was delayed at Thermopylae.²⁴

48. On the basis of this interpretation of Herodotus' times, that is, on the assumptions that the passage of the royal troops took two days and that of the whole army approximately seven, that the period from the completion of the crossing until the beginning of the advance from Doriscus was one month, and that the march from Doriscus into Attica took three months, it is possible to prepare a project of a time-table for the whole march which

²³ There would appear to have been in Herodotus' mind a distinction in this passage between the actual crossing of the Hellespont and the passage into Europe.

²⁴ The main cause of the delay at Thermopylae was the time required by the Persian army to close up its long columns of march through mountainous country.

is in general agreement with Herodotus' times and also in accordance with military probabilities :—

Approximate date.	Event.
March 25th.	Army starts from Sardis immediately after the vernal equinox.
May 7th.	First troops reach the Scamander. Six weeks is not an excessive time for a march of 280 miles when there was no military reason for haste.
May 10th.	The crossing begins. The first troops would spend the 8th on the Scamander to fill up with water and organise the columns for the crossing. On May 9th they would march to the Kaja Chai.
May 12th.	Royal troops complete the crossing and that of the tribal contingents begins.
May 16th.	Last of the army crosses the Hellespont and first troops reach Doriscus.
May 22nd.	Whole army is assembled in the plain of Doriscus.
June 16th.	Advance from Doriscus begins.
July 24th.	Head of coast column reaches Therma—approximate distance from Doriscus 250 miles. A long halt takes place at Therma to gain touch with the other columns moving through more difficult country. (VII. 127.)
August 1st.	First troops leave Therma. Distance from Therma to the Malian plain approximately 140 miles. This march included a halt of several days in Pieria to clear the roads through Mt. Olympus. (VII. 131.)
August 13th.	Advanced guard enters the Malian plain and halts opposite Thermopylae. The army closes up and awaits the action of the fleet.
August 19th.	Last battle of Thermopylae.
September 12th.	Army enters Attica.
September 23rd.	Battle of Salamis.

49. One further point before I leave the march. It would seem probable that the seventh march beyond Aenos was a short one. The fifth and sixth marches from the Melas to Aenos through the Kuru Dagh must have been trying and the animals would have had no water during these marches. A short march from Aenos would have allowed the Ten Thousand, and each successive division as it arrived, to close up and bivouac between the left bank of the Hebrus and Lake Stentoris, where water would have been plentiful. But after a halt there, each successive division until the last must have marched further up the valley of the Hebrus to make room for the troops behind it. This I suggest would account for Herodotus' story (VII. 60) of the numbering in an enclosure which could just contain 10,000 men.⁵⁴

⁵⁴ Muir, *Cambridge Ancient History*, Vol. IV, p. 271, makes a similar suggestion but without reference to the ground. This suggestion does not imply that no

50. It will, I hope, be clear from the above that the conditions of water supply in the Chersonese and on the coast of the Gulf of Aenos in the dry season, together with the nature of the country between the bridges and Doriscus, put a definite and ascertainable limit upon the size of an army which could have marched from the Scamander to the Hebrus in a continuous movement. A much larger army could have been assembled at Doriscus if the march from the Scamander had been made by successive divisions or army corps, moving at a sufficient interval of time to have allowed the Scamander and the Melas to have recovered from the drain upon them. But such a movement would have taken a very long time. We have seen that the last of my 150,000 men would not have reached the Hebrus until a fortnight after the first of them had left the Scamander, even if the army moved in the way which would occupy the least time. The method of march by successive corps at long intervals is therefore incompatible with the date of the battle of Thermopylae and cannot by any stretch be made to agree with Herodotus' account. It is possible that a considerably larger army could have been assembled at Doriscus if, as Macan suggests,⁵⁵ a part had been transported in ships and landed in the gulf of Aenos, or if a part had followed Darius' precedent and, crossing the Bosphorus, had come down to Doriscus from the north. But my examination of the story of the march from the Scamander to the Hebrus on the ground, with Herodotus in my hand, has impressed me with the fact that he must have been at great pains to examine eye-witnesses. The difficulties of the water supply, the time taken in the crossing, the use of one bridge for troops and the other for transport, the use of the lash at the European end of the bridge, and even the apparently fantastic story of the numbering, all turn out to have had some foundation and to be in accordance with what the conditions of ground make probable from the military point of view. I therefore find it hard to believe that if there had been any important movement by the army by sea or by the northern route across the Bosphorus, Herodotus would not have heard of it and told us about it.

51. Of the march from Doriscus to Thermopylae there is nothing new to be said. This route has been examined by many, and Dr. Grundy's admirable survey of the field of Thermopylae is entirely satisfactory. As to the course of the battle of Thermopylae, Mr. J. A. R. Munro has anticipated and improved upon any suggestion I had to make. His account seems to me to be in accordance both with the military probabilities and the ground.

Herodotus evidently sought to cover up the halting and ineffective action of the Greek land forces and to make of the whole story one blaze of glory. There is little doubt but that a united Greece could have successfully opposed

numbering of the army took place. While the arrangement of the march indicates that the organisation and staff work of the Persian army were highly developed, it is not to be supposed that they had elaborated a system of regular returns of strength. The losses during the march through Asia must have been heavy and, as Professor

Filon has suggested to me, it would have been very advisable to ascertain the exact strength and to make good deficiencies from the contingents arriving from Thrace. Herodotus, VII. 100, suggests some such procedure, and that a record was made by Xerxes' scribes.

⁵⁵ Vol. I, Part 1, p. 80, note.

any army which Xerxes could have brought against her in the range of Mount Olympus, provided that she could have prevented the Persians from obtaining the command of the sea. The real strategic reason for the abandonment of the proposal to defend Thessaly seems to me to have been, not so much the fact that there were other passes besides that of Tempe to defend, as that the Greek fleet could not oppose the Persians in the open sea.

As long as the Greek fleet could hold the strait of Artemisium an army, which Greece could well have found, could have held the Persian army indefinitely on the Callidromus range. But tribal jealousies and the fear of Persia's might prevented concerted action by the Greeks, and to those fears and jealousies Leonidas and his little band were sacrificed.

52. Given that the Persians had the military knowledge and experience to march an army of six divisions and a cavalry division some 750 miles from Sardis to Thermopylae, it is not to be credited that Xerxes should have flung his men against the narrow pass of Thermopylae in a series of hopeless frontal attacks when he had the alternative of turning the flanks of Leonidas' little force. It seems to me that he at first designed a combined naval and military operation to take the form of a military demonstration against the pass, while the fleet, sailing round Euboea, threatened Leonidas' line of retreat. Bad weather interfered with this, as it has with so many of our combined naval and military operations, and Xerxes' second plan was a military demonstration against the pass while the fleet fought its way past Artemisium. The result of this plan was the first attack on Thermopylae, and the first naval action of Artemisium, the land attack being designed merely to keep the Greeks on the spot. When the first naval action proved to be indecisive, Xerxes changed his plan to a turning movement by land. The path taken by Hydarnes and the Ten Thousand up the Callidromus must have been known to many Greeks in Xerxes' camp, and no individual traitor was needed to disclose it to him.

53. Anyone who has been over the ground must, I think, agree with Mr. Munro that the Phocians were posted well down the Callidromus covering the road to Doris. They had no outposts out and were surprised by Hydarnes, while Leonidas made the military blunder of not having a detachment on the col above him to connect his troops in the pass with the Phocians. The whole story does not speak highly of the Greek military intelligence, though their lapses are, of course, retrieved by Leonidas' gallantry. The timing of a frontal attack with a flank attack where the flanking force has to march by night over mountainous country is always a very difficult matter, and the second Persian attack on the pass seems to have been delivered too soon and to have caused the Persians some unnecessary loss. Save for this they seem to have conducted their operation intelligently, and as indeed one would expect from men who have performed the fine military feat of marching a large army through some 800 miles of difficult country. Such is, I believe, some approximation to the truth of the story of Xerxes' march from the Scamander to Thermopylae.

F. MAURICE.

ARCHAEOLOGY IN GREECE, 1929-30

(PLATE X.)

THE following account is compiled from various sources: in part from reports kindly supplied by the directors of various excavations, several of whom have generously sent me photographs as well, in part from Prof. Oikonomos' account of the work of the Greek Archaeological Society; I have been enabled to fill gaps through the great kindness of Prof. Karo, Director of the German School, who allowed me to use the proofs of his forthcoming article in the *Archäologischer Anzeiger*, which contains much detail which I have not attempted to incorporate here.

ATHENS AND ATTICA

The year has been marked by the completion of at least one highly important undertaking in Athens—the reconstruction of the northern colonnade of the *Parthenon*, which was finished, under the direction of M. Balanos, in the spring.

Prof. P. Kastriotis has continued his excavations in the *Odeion of Pericles*, where it has been established that the southern wall is a late restoration (dating from the time of Valerian or Justinian). No trace of the original south wall has been found; this fact and the bad state of preservation of the western wall make a satisfactory reconstruction of the plan impossible.

In the *Ceramicus* Prof. Brückner's excavations have thrown light on the history of the Pompeion. The early building, which dates from the time of Conon, was a Palaestra with an impressive Propylon, and was decorated with wall-paintings. After the destruction of the building by Sulla there was an interval during which the site was used for workshops of various kinds, until the Pompeion was rebuilt by Hadrian. (For the post-Hadrianic period see *J.H.S.* XLIX. 231.) Further, the excavation on the road to the Academy (which was begun in 1914) has been continued from the second to the third δρος Κεραμικοῦ. Evidence of the various periods from the fifth century onwards was obtained here, with particularly clear signs of the destruction wrought by Sulla. Among the grave-inscriptions was one of the year 403 with the names of Θιβρακος πολεμαρχος, Χαιρον πολεμαρχος, in the Spartan alphabet; Thibron and Chaeron are mentioned in Xenophon, *Hell.* II. iv. 33, as being buried with other Spartans outside the Ceramicus gate. In the grave-enclosure were found thirteen skeletons, among which were three, buried together in the middle, which are probably those of the Polemarchs and of Lakrates, who is

also mentioned by Xenophon. The best of the finds in the Ceramicus was a grave-stele with a lion on one side and a lioness on the other, which belongs to a fairly advanced period in the fifth century (cf. *Arch. Anz.* Pl. 8).

On a hill between *Trachones* and *Hay. Thomas*, south of Phaleron, Dr. Wrede excavated a Byzantine church, below which were remains of a sanctuary of Demeter; this produced archaic figurines, fragments of votive-reliefs and inscriptions, among these an archaic inscription dedicated to *ARLE* and *MEAVRE*.

Prof. Leonardos, continuing his work at the *Amphiareion of Oropos*, uncovered a temple on the left bank of the stream which flows through the *Temenos*. This temple belongs to the fourth century; below it, at the western half, are remains of a fifth-century temple. On the right bank of the stream the eastern colonnade of the 'Winter Hotel' was uncovered; south of the ceremonial road and of the other buildings, at a spot where the ground rises to a height of about 5 metres, a long building was discovered, containing moulds for lamps and skyphoi, as well as stoppers for vases; these would seem to indicate that the building was a potter's establishment. Further investigations were made in the neighbourhood of the ceremonial road. It is with deep regret that we have to record the death of Prof. Leonardos in Athens last June.

At *Velanideza* and *Pikermi* late Mycenaean tombs were opened by Dr. Kyparissis; a Byzantine church at *Olympos* in Attica was partially excavated by Dr. Ketzias, who found various architectural remains, including some well-preserved Corinthian capitals.

The most important chance find in Athens is undoubtedly a male torso, rather under life-size, which dates from the beginning of the fifth century, and which was found in the bed of the *Ilissos* near the Phaleron road.

BOEOTIA

From the *Kadmeia at Thebes* (see *J.H.S.* 1929, 233) Prof. Karamopoulos has recovered a number of fresco-fragments, and some Minyan and L.M. II pottery (this from the workshop excavated last year). Important results were obtained from a study of the method of construction employed in the Palace; the principle adopted was a simple one, which is still to be seen in use to-day, namely, that of constructing a framework of beams (four short held together at intervals by longer beams), the spaces between which were filled in with small stones, etc. Near by Drs. Bertos and Orlandos have excavated at *Skulikovrysi* and Prof. Soteiriou at the chapel of *Gregorios Theologos* (see *Arch. Anz.* 1929, 103).

THE PELOPONNESE

At *Corinth* the American School have had a very successful season (see de Waele's reports in *Gnomon*, VI. 52 ff. and 280-81, and Karo's in *Arch. Anz.* 1930, 104 ff., which supplement the last report in this *Journal* (1929, 220 ff.)). The most remarkable discovery was perhaps that of fifty-one gold staters of Philip and Alexander which were found, together with an exceedingly fine

gold necklace, in a small cavity beneath the Hellenistic stoa discovered at the end of last year (*Gnomon*, VI, 280-81). Both the staters and the necklace are excellently preserved; the necklace consists of a double row of pendants in the shape of beech-nuts, with lions' heads at the clasps (see the illustrations in *Arch. Anz.*, *loc. cit.*). Other finds include a good portrait of Caracalla (*op. cit.*, Fig. 6, p. 106), a fragment of a very archaic head of poros with red hair, and of another of marble, architectural terracottas dating from the sixth to the third centuries, and part of a small clay altar of Ionian style, with a lion, and the battle of cranes and pygmies painted on it; it belongs to the third quarter of the sixth century.

Prof. Shear's excavations in the cemeteries of Corinth have again been particularly successful (cf. *J.H.S.* XLIX, 221); some of his finds have already been published in *Art and Archaeology*, May and June 1930, pp. 195 and ff., 257 and ff., and in the *Illustrated London News* for August 9. In the north cemetery 235 graves were opened. The lowest Greek graves are Geometric and lie at a level of three metres below the ground; below this level Early Helladic and Neolithic pottery was found. Middle Helladic graves also were found here, but none of the Late Helladic period. The Geometric graves are cists with rubble walls, covered by a single block of sandstone; vases and offerings were placed under another sandstone block just south of the grave (the bodies were always buried with the head to the south). In some cases large vases stood outside the graves at the north and south ends. The Geometric vases show a variety of shapes, a number of types not hitherto known from Corinth, and some which are unique. There are late Geometric graves made of clay slabs, and Protocorinthian and Corinthian burials in limestone sarcophagi. These produced quantities of Corinthian pottery of orientalisising style, as well as Attic pottery and a particularly interesting find in the shape of an imported Lydian vase. A grave with late Corinthian and Attic black-figure vases contained a very fine Corinthian helmet of bronze. In later graves Corinthian silver obols were found which make precise dating possible. In the south-west area a large Roman cemetery was explored.

The *Heraeum of Perachora* was the scene of the excavations by the British School in the early summer of 1930. The temple must have stood somewhere near the end of the long promontory which runs westward from Iatrali and ends almost exactly due north of old Corinth; over the whole of the westernmost extremity of this promontory are to be seen remains of a considerable town. The whereabouts of the Heraeum has not been ascertained, though a vast deposit of votives which inscriptions prove to have been dedicated to Hera was found. These seem to have been kept in a special building, a kind of Treasury, for the building near which they were found was certainly not a temple. By a small natural harbour some little distance from this building the remains of a temple, which goes back to the early fifth century, came to light. The foundations, and in places the walls, of this temple are well preserved, the chief, and very serious, damage which they have suffered being the complete destruction of the east front. The temple was some 60 feet long and 28 feet 6 inches wide; the greater part of the foundations, and the

existing walls, are built of limestone; the tiles, however, were of marble. The building had no external colonnade; the internal division into nave and aisles was made by stone walls, not by columns. At the back there is a compartment almost filled by a square base which obviously once supported the cult-statue. In front by the base is a foundation stone for an isolated column (pieces of which were found in the immediate neighbourhood), in position somewhat analogous to the isolated column in the nave of the temple at Bassae.

A considerable part of the western gable was recovered; also blocks from the tympanum, and triglyphs. The earliest object found in the temple was a sixth-century bronze gorgon, from a vase. The series of votive terracottas goes back to the very beginning of the fifth century, and this seems a likely date for the building of the temple. Next to the temple, and likewise just above the small harbour, was a large fifth-century building which has not



FIG. 1.—PROTOCOLINTHIAN FRAGMENT FROM THE HERAEUM OF PERACHORA.

yet been excavated completely; at present two arms of a finely built wall have been more or less cleared. It would seem that they may be the enclosing walls of an agora.

The principal finds were made in the votive deposit already mentioned. They include a vast quantity of Protocorinthian and Corinthian pottery, and many fine pieces decorated with animals (cf. Fig. 1 and Pl. X). Imported pieces include Attic, Boeotian, Laconian, Parian and Rhodian sherds, and fragments of at least one bucchero vase which is certainly Etruscan and not East Greek. There are some ivory fibulae, circular seals, and couchant animals, which recall ivories found at the Sanctuary of Artemis Orthia. In addition there were a number of terracotta figurines, some engraved gems (Geometric and archaic), a fine small ivory head of classical style, gold pins, sixty Egyptian scarabs and beads, and an interesting series of bronzes dating from the early seventh century to the fifth. The finest of these is a striding Herakles over 5 inches high (Fig. 2)—a work of about 500 B.C. His right hand held his club, his left doubtless his bow.

There remains a considerable area of the town to be excavated, and there must be a necropolis in the neighbourhood.

In the autumn of last year Prof. Karo continued his excavations at *Tiryns*. The buildings in the south-east area which had already been cleared have now been supplemented through an extension of the field of operations, and they have been photographed. In the southern area there are at least three Middle and Late Mycenaean levels of occupation, with rectangular house-plans, usually with built hearths, and often of considerable dimensions. The lower strata have not yet been explored sufficiently for the relations between the walls of



FIG. 2.—BRONZE HERACLES FROM THE HERAKUM OF PERACHORA (3).

Middle and perhaps Early Helladic date to be clear. Virgin soil was reached at only one point, about 1½ metres above sea-level. In the lower strata deposits of pebbles were frequently encountered. The explanation of this phenomenon seems to be as follows: some five kilometres south-east of *Tiryns*, between Mt. Elias and Katsingri, a hill was flattened and the river-bed filled up and supported with a Cyclopean wall, in order that the river which had originally flowed north of Mt. Elias and south of the town might be diverted so as to flow south of Mt. Elias also. In this way the lower town of *Tiryns*, which had often been flooded, was protected from further danger. It is curious that this immense operation has passed almost unnoticed. Apart from sherds little was found, the houses of *Tiryns* and the graves on Mt. Elias, unlike those at Mycenae,

being remarkably poor; the wealth of the place seems to have been concentrated in the citadel.

The work at *Stymphalos* was impeded by the flooding of the lake. Nevertheless Prof. Orlandos was able to follow the town wall on the north-west side of the town for about 300 metres; a fourth-century grave-stele with the name Eukleion came to light by a gate, and others with the names Labiadas, Agano, Athanippe and Damon in neighbouring villages. The large Frankish church at *Stymphalos* was investigated and the position of the windows on the long sides established.

At *Mistra* Prof. Adamantion investigated both secular buildings and churches, such as the Koimesis church of Magonia. One of his principal objectives was to study the chronological relations of the Palaces of the Despots of *Mistra*; approaching the matter principally from the technical point of view he formed the conclusion that the earliest of these is the one which faces H. Sophia; later, and dating from the end of the fourteenth century, is the middle portion of the Palaces with the wing facing the Pantanassa; latest the middle portion in which Frankish influence has long been recognised. At *Sparta* the same scholar excavated the church of Hag. Nikolaos on the north slope of the Acropolis, with interesting results.

At *Maliti* in *Triphyllia* Dr. Svensson Valmin laid bare the plans of Mycenaean buildings both on the acropolis and on the town below. On the former some of the house-plans are strongly Minoan in character. Below the Mycenaean a Neolithic stratum came to light, with pottery which recalls Thessalian and Macedonian, and other finds.

At *Olympia* Dr. Dörpfeld, the results of whose excavations will be published in his *Alt-Olympia*, has again excavated at the Heraeum and is convinced that he has confirmed his hypothesis that the first Heraeum belongs to the period about 1100 B.C. He has further been able to establish that the second temple was not complete when it was replaced by the third; both these buildings he assigns to the ninth century. He also excavated in the Idaean cave at the foot of the hill of Kronos, the earliest remains in which show that its use goes back to the second millennium B.C. He also obtained important results at the Pelopion. Beneath the fifth-century remains which were discovered in the earlier excavations he came to the stratum of black earth in which Geometric figures of bronze and clay had elsewhere been discovered; a metre below this was made the surprising discovery of a circle of stones which had enclosed a mound of about 30 metres diameter. In this pre-Geometric circular enclosure Dr. Dörpfeld recognises the grave-mound of Pelops (*Pindar, Ol. I, 23, and X, 24*).

At *Chalandritza*, near *Patras* (cf. *J.H.S.* XLIX. 233), Dr. Kyparissis opened two Mycenaean chamber-tombs, which contained pottery and other objects, and tholos-tombs at *Troubès* in the neighbourhood. In one of the latter the floor was crossed by two parallel walls, between which was found a mass of Mycenaean pottery. Dr. Kyparissis also investigated Mycenaean graves at *Manesi* and *Mitopolis*.

EPIRUS

At *Dodona* Prof. Evangelidis investigated the Early Christian Basilika in order to discover whether, as Carapanos had suggested, the temple of Zeus had stood on the same site. This suggestion proved to be mistaken, but a quantity of evidence was obtained which made it possible to reconstruct the Basilika in its entirety. At the south end the foundations of a small Hellenistic temple, facing north and south, overlap with those of the Basilika. East and west of this temple are remains of Hellenistic exedrae. It is curious that a temple of Zeus has never been found at Dodona, and it is plausibly suggested that in the sixth and fifth centuries there may have been nothing more than the altar surrounded by tripods (Steph. Byz. s.v. Dodona, quoting Democritus on II. XVI. 233); and that the tradition of a temple of Zeus goes back only to Stephanos' own commentary, in which πανταίον is tacitly expanded to ναός. The finds include remains of inscribed bronze plaques, an archaic relief of silvered bronze with remains of a pair of lions and a rosette, a fine bronze gorgon, a silver ring with the name Ἀντιόχος in late archaic letters of the Western alphabet, and lead tablets with questions addressed to the oracle, such as the early excavations produced. On one of these a man asks περ τῶν γυναικῶν, on others there are questions relating to Δαμάτριος, Διόνυσος, Κλεοφάνης and the north-Epirote tribe the Ἀντιτῶνες.

At *Nikopolis* Profs. Orlandos and Sotiriou continued the excavations of the previous year, and after studying the remains within the Byzantine wall of the city, directed their activities upon a ruined building in the middle of the Christian city. An important result was the elucidation of a whole complex of ruins, in the centre of which is a large early Christian Basilika measuring 68.90 × 31.60 metres. This is now in process of excavation; certain features, the semicircular apse and horseshoe bema, in the middle of which the altar and two eastern bases of the ciborium have been uncovered, correspond to features of the Basilika of Dumentios at Nikopolis. From its position and size it is conjectured that this church was probably the cathedral. In addition certain points in the Basilika of Dumentios and neighbouring buildings were cleared up.

THESSALY

At the *Palaioikastron* of *Kardhítsa* Dr. Stavropoulos opened some Roman graves, and discovered a hoard of thirty-six tetradrachms of Philip, Alexander, Antigonos and Lysimachos, and of Athens, Larisa and Boeotia.

At *Nea Anchialos* (cf. *J.H.S.* XLIX. 234) Prof. Sotiriou has followed his important discoveries of last year by completing the excavation of the Basilika, which lies on the road from Volo to Halmiros. This building, which is of Hellenistic style, is of great interest as belonging to the earliest Christian period; it has two rows of eight columns, with atrium and narthex, various adjuncts in south and east and a small propylon which leads to the atrium from the south. The style of the whole points to a date in the fifth century.

The atrium and narthex of a third church have been partially uncovered, as well as a mosaic-worker's workshop, with raw material of various kinds. This church appears to belong to the period of Justinian. The results of these important excavations are described with much more detail in Oikonomos' *Ἐκθέσις*, p. 13 ff. (cf. Karo, *Arch. Anz.*, 1929, 123-4).

MACEDONIA

At *Servia* in W. Macedonia Mr. W. A. Heurtley excavated a productive Neolithic and Early Bronze-Age site, which lies on the south bank of the Haliakmon, at the point where the modern road from Macedonia to Thessaly and South Greece crosses the river by the iron bridge, built by the Turks in 1912.

The object of the expedition was to elucidate certain problems of the Thessalian and Macedonian Neolithic Age; and to obtain, if possible, precise stratigraphic information about certain black-polished and painted pottery which makes its appearance in Thessaly at the end of the First Neolithic Period, and which has usually been attributed to invaders from Central Europe. The evidence supplied by the excavation goes to show that this attribution is justified. There are three phases in the history of the site. During the first phase it was occupied by people who used pottery identical with that of the First Thessalian Period, and who were presumably Thessalians. These people remained until the site was finally deserted in the Early Bronze-Age. The second phase was ushered in by an extensive conflagration, with which the appearance of the new black-polished pottery, of a new class of painted pottery, of pottery with incised spirals, coincides. The simultaneous appearance of these novelties and their strongly Danubian character place it beyond reasonable doubt that the desired evidence for the earliest incursion of Northerners into Greece has been obtained. The most interesting find was perhaps a complete skeleton, buried in a crouched position in a round hole, sunk through the debris of one of the burnt houses. Above it lay a thin layer of ashes and several broken vases of the new kind, some blackened by fire. It thus seems probable that the burial is that of one of the invaders. The skeleton has been cut out with its surrounding earth and transported to the Museum at Salonika, where it awaits examination by an anthropologist. Close upon the heels of these Northern invaders came Early Bronze-Age people from Macedonia, bringing with them their characteristic pottery. Their arrival and settlement constitute the third phase in the history of the site.

At *Dion* Prof. Sotiriades continued the excavations of the previous year. The greater part of the remains uncovered belong to the Roman period, which seems to have seen the destruction of most of the earlier material. The early Christian Basilika is now for the most part uncovered, and mosaic paving, wall paintings, and monolithic columns of marble and granite have come to light. A Doric capital had been built into the church, and seems to point to a temple in the neighbourhood. Other finds, of the Roman period, include fragments of a sarcophagus with a hunting scene, the base of a statue of Tiberius with a Latin inscription, a mosaic pavement with fish, and other fine mosaics (from houses).

THE ISLANDS

Aegina continues to prove itself one of the most productive of all Greek sites. Here Dr. Welter has continued his excavation of the prehistoric settlement on the hill of the temple of Aphrodite, and has discovered a quantity of pottery dating from the Early Bronze-Age to the Late Mycenaean period. A Mycenaean necropolis has been tackled and has yielded imported vases of the 'Palace style,' and local imitations (from shaft graves). Some dromos-tombs yielded stirrup-vases, three-handled 'amphorae' and glass ornaments. Important evidence as to the fortification of the town about 470 B.C. and the extent of the early fortifications was obtained from graves which were disturbed in the course of that fortification; these graves are part of a cemetery which covers the period between the end of the Geometric age and the sixth century. A rich series of Sub-geometric, Protocorinthian, Corinthian and Proto-attic vases was obtained here, as well as Laconian and East Greek.

At *Lávadi* on *Keos* Dr. Stavropoulos excavated an archaic cemetery, and found a very fine 'Apollo,' over life-size, of Parian marble and East Greek style. This has now been brought to the National Museum at Athens.

Further investigations off *Cape Artemisium*, directed by Dr. N. Bertos, have brought to light, in addition to various minor remains from the sunken ship which had on board the bronze Zeus, horse, and rider, found in 1928, the right fore-hoof and part of one hind leg of the horse, as well as parts of the rider's right leg, which can now be completely restored. The Zeus was put on exhibition in the National Museum at Athens in the spring of the year.

At *Naxos* Dr. Welter has completed his excavation on the small island of Palati which lies off the town of Naxos. The temple, which measures 15.14 × 37.42 metres at the foundations, has now been completely laid bare; it was never completed, and only a few marble architectural fragments were found. In the foundations, among the chips from the building, Geometric sherds were found (cf. *Ath. Mitt.* LIV., 153 ff.). In the middle of the cella, immediately above the rock, was a Neolithic stratum; Neolithic to Late Mycenaean pottery was found elsewhere in the earth-filling. On the coast opposite Palati there was a settlement which dates from pre- to Late Mycenaean times, with pre-Mycenaean houses arranged on the radius of a circle, recalling the prehistoric houses beneath the Heraeum of Samos, and over these Early and late Late Mycenaean houses. A few Geometric sherds show that this place was inhabited in the post-Mycenaean period. Further, in the town a large rectangular building, which had been known since 1908, is now shown to be a stoa with a colonnade on three sides dating from the Early Hellenistic period, and bearing a very significant resemblance to the Delphinion at Miletus (*Miletus*, Vol. III). This building will be cleared in the next campaign.

At *Thasos* in May and June 1929 the principal activities of the French excavators, MM. Bon and Devambez, were concentrated in the neighbourhood of the agora. South-west of the exedra discovered in 1927 (*B.C.H.* XLIX, 462 ff.) a marble odeion came to light, with an orchestra of 13 m. diameter, and a votive inscription to Hadrian and Sabina. Nearby an archaic female and a



FIG. 3, α-δ.—MODELS OF BUILDINGS, FROM LEMNOS.

Hellenistic male head were found. Other finds include a so-called Thracian rider-relief, a Hellenistic-Roman house, a mosaic, and a sacral building between the sanctuary mentioned in *J.H.S.* XLIX. 230 and the Poseideion.

At *Lemnos* Prof. Della Seta has made a number of important finds, both in the cemetery and in the town (Efestia). The most remarkable find in the cemetery was a grave which contained, in addition to the usual vases and some bronze fibulae, a stephane of electrum and small plates of dog-tooth shape, a granulated ear-ring and fibula with a large bow, all of the same material. Further work has been done in the Geometric quarter of the town, but the



FIG. 4.—TERRACOTTA FIGURINE, FROM LEMNOS.

most important discovery in this neighbourhood has been that of a Sanctuary which proved to contain a rich deposit of figurines and pottery, as well as some stone objects.

Among the objects of clay are some models of buildings two of which are shown in Fig. 3 (in *a* note the female figures on the pilasters; in *b* the various aquatic animals and the human figure in the forecourt); another is a model of a fountain house, with a lion's head spout of very early style. There are also female figurines of remarkable style (cf. Fig. 4), and a whole series of sphinxes and sirens (cf. Fig. 5). The vases are finely decorated with meanders, spirals, hooks and triangles, and there is a class with figurative decoration, one of which shows a man playing the lyre and dancing before a man and a woman;

the usual colours are black, brown and red. Many of the finds in this Sanctuary are of very early date, and may go back to the ninth century; Corinthian and Attic black-figure vases, however, as well as terracottas like the siren, show that it continued in use till the end of the sixth century. It is legitimate to conclude that the houses, the cemetery and the Sanctuary at Elestia all belong to the same population—that which Herodotus calls Pelasgic (VI. 140) and Thucydides (IV. 109) Tyrrhenian.



FIG. 5.—SIREN, FROM LEMNOS.

A summary of the finds at Lemnos from 1926-29 is given by C. Anti in *Atti del R. Istituto Veneto di Scienze, Lettere ed Arti*, LXXXIX. 733-40.

At *Mytilene* Miss Lamb has continued the excavation of the prehistoric site of Thermi. The nature of the site, with its successive villages (presumably five), and its pottery (closely akin to that of Troy I and IIa), was described in *B.S.A.* This year's work not only confirmed but also amplified last year's conclusions. One area has now been dug to virgin soil: another has been cleared to expose the uppermost city: two, comparatively small, await investigation. The different treatment of different areas is imposed by the fact that the land belongs to three proprietors.

The Buildings.—The uppermost city was surrounded by a wall of which

only the foundations remain. These consist of irregular blocks, mainly of schist, and have a width of 1.2 m. to 2.5 m. At one point they are crossed by a paved road belonging to a later date than the settlement, and contemporary with certain foundations which were brought to light in outlying test pits to the south and south-west.

The commonest type of house at all periods was long and narrow, with its entrance in the narrow end. In the uppermost city, however, and possibly in the lower cities, a type with semi-apsidal ends is found. The positions of doors are marked either by door sockets or by long slabs of schist. Streets, roughly paved with stones, or large cobbles from the shore, divided the houses into groups. Hearths and ovens, composed of layers of stones, sherds, burnt clay and ashes, were, as last year, a feature of the site.

It is now certain that the earlier towns extended much further to the north



FIG. 8.—BRONZE WATER-SPOUT FROM THE SAMIAN HERAECUM.

than their successors; we have still to ascertain if their southern boundaries coincide.

The Finds.—While last year's pottery illustrated the sequence of wares (see *B.S.A.*), the vases found this year are so numerous that they form a very useful series of forms. Bowls, jugs, pyxides, mugs, tripod cooking-pots, lids are among the commonest shapes, and we can now trace their modification at different periods.

About thirty-five figurines, whole or fragmentary, show a surprising variety of type. Three were of stone; the rest of terracotta. One of the most interesting finds was a crucible for melting copper which was discovered in one of the lowest strata, proving that copper was worked in the first period of the settlement; another form of crucible was found at a higher level. Among the copper objects, the majority are pins, but a 'flame-shaped' knife, like those found at Troy, should be mentioned. The most interesting of the stone objects, apart from the figurines, are (1) a bowl of white limestone; (2) a fragment of a marble bowl, probably Cycladic; (3) some of the polished stone implements.



FIG. 7.—BRONZES FROM THE SAMIAN HERAEUM: GROUP OF A MAN AND HIS DOG ATTACKING A LION, AND RELIEF WITH PART OF SPHINXES AND ORNAMENT.

Extremely important discoveries continue to be made by Prof. Boscher at Samos (see *Arch. Anz.* 1928, 629; *J.H.S.* XLIX, 231; *Arch. Anz.* 1929, 147 ff.). The partitioned South-Hall in the Heraeum has been further excavated and is shown to have bordered the southern part of the temenos in the seventh century. Near the mouth of the stream is a rectangular walled basin dating from that period, which was clearly a sacral bath. The south end of this Hall is built over by the northern end of a large peripteral building with cells of two partitions, which faces north-east and would seem, from its technique and contents, to belong to the time of Rhoecus. The great dipteros of Rhoecus (*Arch. Anz.* 1927, 401, F to L and 9 to 11) was preceded by a narrower Hekatompedon (K 10-M 10 on the plan), which itself was built over a Geometric Hekatompedon. The finds from these and other areas were extraordinarily rich, and include over 100 bronze votives, over 80 terracottas, objects of faience, glass, ivory, bone, amber, alabaster, lead and rock-crystal; fibulae, scarabs, ostrich-eggs, tridachna shells; limestone statuettes of lions, hawks, men and women; quantities of Geometric, orientalisng and archaic sherds; as well as some of Pinakothek amphorae. Some of the bronzes are illustrated herewith (Figs. 6-7).

In April and May 1930 Dr. Wrede made trials in several places within the old town of Samos. Various buildings, mostly late Hellenistic and Roman, came to light, also quantities of Hellenistic, and some earlier, pottery. On the rock lay a prehistoric stratum, as on the Kastro.

CNOSSE

Important progress has been made with the work of reconstruction at Knossos and considerable excavations have been undertaken. I append Sir Arthur Evans' account:

'It had been my intention, with the exception of some supplementary investigations of comparatively limited scope, to devote this year's work at Knossos to carrying out certain important works of reconstruction and reconstitution in the "Throne Room" area and the Northern Entrance system. Remains were struck, however, which entailed a serious campaign of excavation, comparable, indeed, with those of the earliest years. The whole work was of over four months' duration, from the beginning of February to after the end of June, and for much of the time as many as eighty workmen were employed.

'The new developments involved the whole western border and approach, and led to the discovery of an outer enceinte wall, with the new entrance system on that side. The new outer wall, extending from the north border of the Theatral Area to the Western Entrance, and including an old Acropolis Quarter as well as the whole West Court, dates back to a proto-palatial age, about 2100 B.C. The two paved Causeways crossing the Court were found to have originally converged on an outer entrance leading, beyond the enceinte wall, to the ramp of a hitherto unknown Minoan roadway running due west and with supporting walls on either side. Near this entrance, inside the enceinte, were brought to light two new "Koulouras" or round-walled refuse-pits arranged in a regular row, west of that already known. Inside these and a neighbouring

basement lay a mass of sherds illustrating the finest Middle Minoan Ceramic stage and supplying new types of the greatest interest.

The new "Koulouras" were themselves built over large houses of the preceding M.M. Ia Period, with their brilliantly painted stucco pavements and stairs and their household relics largely complete. Mr. Pendlebury, the new Curator of Knossos, who gave me valuable assistance throughout, is preparing a full account of these houses and their contents for the *B.S.A.*

In a room of a later house, north of these, full equipment for the domestic snake-cult has been discovered. There is an extraordinary variety of vessels of unique shapes, with snakes coiling up them. A hitherto unexampled monument of the Minoan religion has been supplied by the finding of a movable stone altar, which had apparently drifted from the sanctuary hall to the north-west of the palace. It bears the sacred horns and double axes in relief: they were originally coated with painted stucco.

Amongst other important finds is a part of a painted vase, of M.M. II date, with a graffiti inscription of a hitherto unknown class presenting about twenty linear characters, which, as it dates from about 1800 B.C., is of special importance in the history of the script.

Meanwhile, thanks to the structural work of Mr. Piet de Jong and the artistic skill of Monsieur E. Gilliéron, fils, the works of restoration and reconstruction on which I have embarked have been successfully completed. The "Room of the Throne" and its Antechamber have not only been roofed over, but the upper system, including a clerestory and lantern, has been reconstructed in such a way that the ancient system of lighting has been recovered. The original effect of the ceremonial chamber has been further attained by the restoration of the frescoes of three more of the guardian Griffins. The Western Terrace above the Northern Entrance passage has not only been completed to its original level, but part of the portico has been reconstructed and a section of the great painted relief showing an olive tree and the forepart of the charging bull has been replaced in replica, and to visitors approaching from the north the Palace must appear much as it did to the first Greek intruders.

At *Hosios Theodoros*, east of Candia, Dr. Marinatos has excavated the Minoan harbour and a neighbouring cave of Eileithyma. The walls at the former are now cleared and give a clear prospectus of a Minoan harbour. The cave produced material which ranges from the Neolithic to the Venetian period. In the neighbourhood house-runs with Late Minoan, Proto-geometric and Proto-corinthian sherds were found. Dr. Marinatos further carried out successful excavations of Minoan tombs in various parts of the *Messara*. One of these appears to make a connection with the tholos-tombs of the mainland; its contents were purely Middle Minoan. At *Sklarokampos*, 10 km. west of Tylosos on the road to Axos, he excavated a large Minoan house, which contained fine pottery and seal-impressions, and which was destroyed by fire towards the end of the first Late Minoan period.

At *Mallia* interesting discoveries have been made by M. Chaponthier. A quantity of good Middle Minoan III pottery was found in the magazines. Two rooms near the south-west bastion were certainly used for cult purposes: one

contained an altar, braziers, etc., and two clay feet with sandals. Outside the south-west corner are two circular pits, faced with small stones, and with a central pillar, as in other Cretan palaces; the examples at Mallia are cemented and are therefore cisterns. A quantity of pottery and of fragments of steatite, marble and alabaster vases was found; among the pottery a fragmentary rhyton with lionesses, painted and in relief, on either side of the handle, is remarkable. M. Demargne has further explored the cemeteries of Mallia; an interesting find was a grave of Early Minoan III date with a rich furniture of vases. A street and houses were excavated north of the Palace, and trial excavations were made at Anavlochos, near Mallia, where Geometric chamber tombs and Geometric and archaic Greek walls came to light; a cistern here produced a quantity of Geometric and archaic sherds, and interesting terracottas of various kinds.

CYPRUS

In *Cyprus*, at *Hagia Eirene*, on the west coast between Morphou and Crommyon, Dr. E. Gjerstad has excavated a temenos which goes back to the late Bronze Age, and continued in use till c. 450 B.C. The Bronze Age cult was of the type known as the 'house-cult'; in the Iron Age, however, the temenos was a large enclosed space, with altar in the middle, round which votives were placed. The votives include statues and statuettes of terracotta, four statuettes of bronze, about 300 scarabs, and various kinds of pottery. The temenos was found untouched, so that a clear picture of its arrangement has been obtained.

On the Acropolis of *Kition* Dr. Gjerstad has excavated the state-temple of the city, and has made clear the various phases through which the building passed. A good number of statues and statuettes, dating from the middle of the sixth century to the Hellenistic period, were found; the material will certainly throw light on the relations between the Cypriotes and Phoenicians at this time. Lastly some tombs were excavated at *Amathus*, and have provided material to supplement that obtained in previous campaigns at *Lapithos* and *Marion*; the tombs date from the period between 800 and 450 B.C.

G. G. PAYNE.

AN INSCRIPTION FROM LAMPSACUS

[ἐπειδὴ Νοσσηκᾶς Ἡράδης] Θάσιος
⁽⁸¹⁾ καὶ τῶν
 πολιτῶν τοῖς ἄλοῦσιν ἐν τῇ ναυμαχίᾳ
 αἱ τῆς σωτηρίας αἵτιοι ἐγένετο καὶ
 ἐκ τῶν ἰδίων ἀργύριον ἔδωκεν ἐς τὴν
 ἀνακομιδὴν αὐτοῖς τὴν εἰς οἰκίαν

This excerpt out of a recently discovered inscription from Lampsacus¹ introduces us to a naval battle of which no other record exists. Can the date and occasion of the battle be determined? The editor of the inscription, M. G. Daux, concludes that any such attempt must be mere guesswork; but in telling us that the letter-forms of the new text are such as one would expect in a document of c. 300 B.C. he has given us a clue which invites exploration.

At this time Lampsacus was no longer in a position to maintain an independent navy in support of its own war-policy. Hence it may safely be assumed that the Lampsacenes captured in 'the sea-battle' were serving under one or other of the Diadochi. Of the part played by Lampsacus in the warfare of the Diadochi so much is known: until 302 B.C. it was subject to Antigonus; in that year it made voluntary submission to Lysimachus, but was recaptured a few weeks later by Antigonus' son Demetrius.² It is not known for how long Demetrius was able to retain his prize after the battle of Ipsus, but since Lysimachus had extended his conquests by 289-8 B.C. at the latest to Ephesus,³ it is probable that he had recovered Lampsacus by then. In any case, it is a tolerably certain inference that the Lampsacene crews served either under Demetrius or under Lysimachus.

It is tempting to refer ἡ ναυμαχία to the naval battle *par excellence* in the wars of the Diadochi, the action off Cyprian Salamis in 306 B.C., in which Demetrius made short work of the fleet of Ptolemy. But the catastrophic character of this engagement makes it unlikely that Ptolemy was able to take, much less to keep, any prisoners off Demetrius' ships. Indeed, Demetrius' consistent success as an admiral suggests that the Lampsacene sailors of our inscription were not serving under him at the time of their capture.

More probably, then, the Lampsacenes fought under the orders of Lysimachus. It is true that no ancient text explicitly mentions a war-fleet of Lysimachus; but we know that this king possessed transport-vessels,⁴ and seeing

¹ *Bulletin de Correspondance Hellénique*, (294-89 B.C.); Geyer in *Pauly-Wissowa*, 1923, pp. 46-7.

² Diodorus, XX, 105. 2; 111. 3.

³ *Tarn, Camb. Anc. Hist.* VII, p. 78

⁴ Diodorus, XX, 112.

that the water-way from the Aegean to the Black Sea extended through the heart of his realm, we are almost bound to assume that he had organised a patrol service, if not a fighting squadron, for this all-important line of communications.

Among the known wars of Lysimachus the only one in which room can be found for a naval battle is that of 302, in which his arch-enemy Demetrius forced the Dardanelles and Bosphorus and raided the Black Sea. In the Black Sea Demetrius' squadron sank a transport flotilla of Lysimachus.⁵ Could this be the occasion on which the Lampsacene seamen were taken? Probably not, for at the time Lampsacus had already been captured from Lysimachus and could no longer furnish him with crews. It is far more likely that the Lampsacenes were taken prisoners at an earlier stage of the campaign, when Demetrius entered the Dardanelles and captured Lampsacus itself.⁶ If Lysimachus had any sort of a fleet to oppose to Demetrius he would no doubt have stationed it at one of the critical points of the Dardanelles passage, i.e., at its Aegean entrance, at the narrows of Sestus-Abydus, or near Lampsacus, which commands the Black Sea entrance of the bottle-neck. It is at one of these points that we should look for the site of the engagement mentioned in our text. This choice of site will also explain why an action which in itself was too insignificant to receive notice in the general histories of the Greek world was described in our inscription as '*the naval battle*.' If it was fought close by Lampsacus, or in actual view of the town, and involved a change of masters on its part, no further description was needed.

M. CARY.

⁵ Diodorus, XX, 112.

⁶ *Ibid.*, 111, 3.

NEW VIEWS ON THE RELATIONS OF THE AEGEAN AND THE NORTH BALKANS

We have been treated to many variants of the thesis that brings some or all the elements of neolithic culture in Greece from a little-known region north of the Balkans. Recently two versions¹ have appeared that surpass their fore-runners in profundity and erudition. After intensive study in the principal Greek Museums and visits to Serbia and Hungary, Dr. Frankfort has come to the conclusion that there was a great influx of people² from the Danube basin across the Balkans and into Greece about the end of the First (Thessalian) Neolithic Period. This Danubian invasion would have been in a sense a counterpart of one from farther east that brought the obviously intrusive Dimini culture to eastern Thessaly.

The clearest proof of their advent that his Danubians have left consists in certain types of carboniferous pottery. But, of course, carboniferous wares are characteristic of the earliest cultural layers in the whole east Mediterranean region from the Hellespont to Upper Egypt.³ Dr. Frankfort himself admits this generally accepted proposition as fully as Mr. Forsdyke. He even goes so far as to advance evidence for the existence of a similar tradition in Thessaly itself, coeval with, and perhaps even prior to, the classical neolithic red ware of the First Period. Plainly then black carboniferous pottery *per se* does not have to be brought from the Danube valley to reach the Aegean area.

Consider then the distribution of the fabrics our author singles out from the mass of black wares as intrusively Danubian in Greece. They are not, like Dimini ware and its Corinthian analogues, concentrated in and confined to regions peculiarly exposed to penetration from the north. On the contrary, the types upon which Dr. Frankfort insists, burnish-decorated, ribbed, knobbed and white-painted wares, are commonest in the sheltered valleys of Phocis and Boeotia. Central Greece is hardly where we should expect to find northern invaders congregated; on the other hand, it is a region where an old tradition might persist longer than elsewhere. And the black wares there might be due to just such a survival. For there is no local stratigraphical authority for the proposal, made by the present writer in 1915⁴ and accepted only with due reserve by Dr.

¹ Frankfort, *Studies in the Early Pottery of the Near East*, II, i. Matz, *Frühkretische Siegel*.

² Frankfort, *op. cit.*, p. 42.

³ Even in the very earliest culture of Egypt found at Badari, black carboniferous pottery occurs, and the classical Predy-

nastic black-topped ware is partly carboniferous, as Lucas has recently shown, *J.R.A.S.*, LIX, p. 128. On the distribution of such wares cf. Forsdyke, *B.M. Catalogue, Vases*, I, i. p. x.

⁴ *J.H.S.*, xxxv, p. 200.

Frankfort, to put the black wares at Hagia Marina and Orchomenos later than the red fabrics. Hence the Central Greek black wares might be regarded as a legacy from a common east Mediterranean tradition. Since the very wares under discussion appear also in Anatolia at Yortan and Boz Euyuk, the idea that they are developments of a general common tradition is materially strengthened.

Turn now to the wares themselves. There is no doubt whatever of the identity of the burnish-decorated and ribbed fabrics from Central Greece and from Vinča in Serbia. But the distribution of both types north of the Balkans is quite limited. The former is confined to Serbia, and even there is far from common. Ribbed ware does eventually reach Central Hungary (Lengyel and Bodrogkeresztúr)⁵ and even Czechoslovakia. But while at Vinča it appears already in the earliest strata, at the more northern sites it appears in a phase that must be equated rather with the Middle strata at Vinča, my Period II—in other words, it spreads gradually northward. At Lengyel, too, new southern imports (e.g. *Tridacna* shells) appear about the same time, and in Moravia copper and spools that can be paralleled at Troy. To label as Danubian fabrics one of which only just crosses the Balkans, while the other demonstrably spreads slowly northwards, is illogical. Conversely the rippled wares of neolithic Crete and the burnish-decorated wares of Syria at least disclose tendencies in the original Mediterranean ceramic tradition from which our specialised varieties might have developed.

The case of knobbed ware is still worse. The variety found in Thessaly and Central Greece characterised by the application of flattened pellets to the vase-surface is really uncommon in the Middle Danube basin and does not occur at all farther north. On the contrary it enjoyed a wide popularity in the western Mediterranean as far west as Almeria.⁶ If it were to symbolise Danubians we should have to postulate their influence not only in Malta but even in Spain, on a culture which might well be proto-Mediterranean in origin but could only by the wildest stretch of the imagination be termed Danubian.

Worst of all is the case of the white-painted ware. Dr. Frankfort, elsewhere lavish of references, does not cite a single sherd from any Danubian site. (Erőd is, of, course not Danubian in the sense in which Dr. Frankfort and I use the term). I have not seen a trace of it in the Museums of Zagreb, Osijek, Belgrade, Vršac and Szeged, where the finds from Middle Danube sites are concentrated, nor yet among the material from Tordos and other stations in the Maros valley at Cluj (Koložvar). Indeed, the only places I know, north of the Balkans, where black polished pottery decorated with linear patterns in thin white paint occurs, lie on the Upper Alt, where the ware is associated with the 'Black Earth' culture of Erőd. Dr. Frankfort himself contrasts the latter with his Danubian. Actually the fabric in question seems in all probability to be Anatolian in origin.

At Hagia Marina Dr. Frankfort adduces a fifth ware which has for him a Danubian ancestry. It is decorated with incised ribbons, hatched or punctured.

⁵ Both sites belonging principally to my Danubian II Period as defined in *The Danube in Prehistory*. The finds are at Szekesvar and Budapest respectively.

⁶ There are good examples in Siret's collection at Hererian; for Maltese sherds cf. *Liverpool Annals*, lii, pl. v.

In this case the Danubian similarities are really close, and the analogous wares have a wide distribution between the Balkans and the Sudeten in quite early times. But then there are still more Danubian-looking sherds in a good neolithic



FIG. 1.—MAP SHOWING SITES MENTIONED.

context at Knossos. So our author has to invoke trade down the Adriatic at that remote date to explain their presence in Crete. But why stop here? There are black wares decorated with ribbon patterns in Egypt from Badarian (*i.e.* earliest Predynastic) times onwards,⁷ and they and their decoration often

⁷ Brenton and Caton-Thompson, *The Prehistoric Egypt, Pottery Corpus*, N. and Badarian Civilisation, p. 23; Petrie, below, p. 260.

approximate quite as closely to Danubian patterns as do the Phocian and Cretan. Let us note too that cognate designs are by no means unknown east of the Aegean in Anatolia and Syria.⁹

In none of these cases, then, is a Danubian origin as against a derivation from the native east Mediterranean tradition a necessary postulate. In the case of the white-painted ware and the ribbon wares of Predynastic Egypt it is absolutely excluded; for there is not the least ground for assuming Danubian influence on Predynastic Egypt, nor indeed for supposing that any culture possessed of pottery existed at all in the Danube valley at the remote epoch to which the earliest agricultural settlements on the Nile go back.

As to forms, Dr. Frankfort relies principally on the 'raking handles.' But since his *Studies* were composed, Heurtley's report on Vardarotitsa¹⁰ has appeared. In it the excavator shows conclusively that the oldest datable specimens of the type on the European mainland belong to a complex that is wholly Anatolian in character. All the datable specimens from the Danube valley that approximate even remotely to our types are attributable to an advanced stage of the local Bronze Age comparable at earliest with the B Period in Macedonia. On the other hand, in Cyprus and in the neolithic layers at Knossos¹¹ we encounter forms that might have sprung from the same (wooden) prototype and that so confirm its Anatolian affinities deduced from its context in Macedonia.

In fact absence of handles is a feature of all the earliest Danubian ceramics. Neither in the lower levels of Vinča nor at Csóka, Tordos or Klakari, still less on the gourd-shaped vases of Danubian I in Austria and Czechoslovakia, is a true handle to be found; the lug alone was known to these early potters. It is, therefore, surprising to find the high-handled cup and the tankard cited by Frankfort as Danubian forms.¹² Certainly both types occur in the Danube valley, but they appear late, at first sporadically and in a very significant context. In the Danubian II phase we find both types represented by a couple of examples each from Lengyel and cemeteries along the Tisza.¹³ Though the chances of handle-fragments being preserved are disproportionately great, not more than one per cent. of the Danubian II vessels are thus equipped. Moreover, this first hesitating appearance in the Middle Danube valley coincides with the advent of fresh southern imports represented by Mediterranean or Red Sea¹⁴ shells and of objects unmistakably imitating Aegean models. Of the latter I should like to mention cubical or parallelopiped-shaped blocks of clay with one or two round cups excavated in the centre and perforations in the corners.¹⁵ In shape, size and even details of construction—e.g. the corner perforations—these stray objects agree exactly with the stone paint-pots so common in the Early Minoan tombs of Crete.¹⁶

⁹ e.g. *Liv. Annals*, i, pl. XLIV.

¹⁰ *B.S.A.*, xxvii, pp. 51-4.

¹¹ Evans, *Palace*, i, Fig. 7, 3.

¹² Pp. 115 and 132.

¹³ Wesinsky, *Lengyel*, Nos. 73, 331, 3; *Archaeologia Hungarica*, iv, Pls. I, 6, II, 1; *Wiener Prähist. Ztschr.*, xiii, p. 37, fig. 10, 8.

¹⁴ *Wiener Prähist. Ztschr.*, x, p. 3 (*Cassia saburon*); from Lengyel, *Tridacna gigantea*.

¹⁵ *Mit. anth. Ges. Wien*, lvii, p. (185) (Sitzungsberichte); Schrödl, *Vorgeschichte Böhmens und Mährens*, Pl. VII, 12.

¹⁶ Xanthoudides, *Fouled Tombs of Mesard*, Pls. III, X.

In the same context I might cite the simultaneous appearance in limited numbers and over a restricted area—not farther north than southern Moravia—of clay stamps or *pintaderas*.¹⁶ Both in shape and design—notably the 'filled cross'—these agree with types found in larger numbers in Thessaly, Anatolia, Cappadocia and as far east as Susa, where they are certainly pre-Sargonic.¹⁷

The first tentative appearance of high-handled cups and tankards in the Danube valley, accordingly, coincides with a spread of indubitably exotic products. Moreover, they meet us already fully developed in Danubian II without any obvious local antecedents. It is, therefore, more reasonable to regard them as additional instances of that current of south-eastern influence which is so clearly manifested in other objects of the same date. Later on both types certainly become quite common on the Middle Danube. Tankards, for example, are typical of the earliest Bronze Age culture at Perjámos and Ósztiván on the Lower Maros. But their shapes and the polished black or mottled fabric strongly suggest reinforced Anatolian influence. The spread of Oriental metal types—spiral earrings with flattened ends as in the Royal tombs of Ur,¹⁸ knot-headed pins as in Troy II and ingot torques as at Byblos¹⁹—confirms that impression. Frankfort's forms do indubitably illustrate relations between the Danube area and the eastern Mediterranean, but in a sense opposite to that which he postulates.

Finally, Dr. Frankfort adduces the spiral and fretwork patterns as proof of Danubian influence even on the Early Helladic and Early Cycladic cultures. Fretwork patterns certainly occur early at Tordos and other kindred Danubian sites, though the finest products of their technique belong to the much later Slavonian culture and the full Bronze Age. But the same technique is applied occasionally to bell-beakers in Spain,²⁰ where Danubian influence is scarcely thinkable. In fact these patterns are inspired by wood-carving. As Cycladic pottery is profoundly influenced by wood-work, patterns derived therefrom are intelligible upon it without any appeal to the Danube basin. At the same time Hall²¹ has very shrewdly pointed out that a similar pattern was current among the Sumerian goldsmiths, whose influence in the Aegean will be mentioned again in the next paragraph.

The spiral and meander certainly have a strong claim to a Danubian pedigree. Dr. Frankfort rightly insists on the way these motives at all periods luxuriate on the vases north of the Balkans, while in the Aegean area their rôle in ceramic decoration before Late Minoan times was very subordinate. But perhaps in his estimate of the position of the spiral in Aegean art, our author has concentrated his attention too much on the vases. The discoveries at Mallia show the motive flourishing on stone and metal work at a time when it was quite rare on pots. Indeed, it is on stone, ivory and metal that the running spiral is best represented

¹⁶ E.g., Schrödl, *op. cit.*, Pl. VI, 10.

¹⁷ To the examples enumerated by Matz, *op. cit.*, add Childe, *Most Ancient East*, Fig. 63.

¹⁸ Childe, *op. cit.*, Pl. XXII, a.

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¹⁹ Syca, vii. (1925) Pl. II.

²⁰ A. del Castillo Yarrilla, *La cultura del vaso campaniforme*, Pl. LXXIII.

²¹ *Civilization of Greece in the Bronze Age*, p. 60.

in Early and Middle Aegean times.²² It may be that, in the Aegean world, the motive belonged not so much to the repertory of the vase-painter as to the goldsmith. In that case the derivation of the Aegean series from the older Sumerian models, suggested by Hall,²³ would seem certain, and Danubian intervention would be entirely superfluous.

The conclusions of the foregoing analysis are plain; not one of the ceramic parallels between the Aegean and the Danube region, adduced by Frankfort, can be accepted as unambiguous evidence of influence from the latter quarter upon the Aegean world. He has drawn attention to a number of really significant agreements, but, owing to an eminently excusable want of familiarity with the sadly scattered Hungarian material and a failure to appreciate chronological relations only very recently settled, he has misinterpreted these. Relations subsisted, but, as we have demonstrated above conclusively in the case of the high-handled cups and tankards, they betoken influence from the south-east. By Period II at least a cultural current was flowing up the Danube valley. Can the earlier agreements going back to Period I be interpreted in the same sense? Our analysis of the distribution of burnish-decorated and ribbed wares would certainly favour that view. But the case of the spiral is crucial.

Here Dr. Matz comes unwittingly to our aid; for he too regards the spiral as a Danubian element in the Aegean. To him it is one of the modes in which a specific mentality, a peculiar attitude towards the round surface to be decorated, manifests itself. Another symptom of the same 'Danubian' attitude is the 'torsion motive'.²⁴ Now this pattern appears, as Matz himself points out, in a mature form on a ribbon-ornamented vase from Predynastic Egypt, so that once again, if we admit Danubians in Greece, we shall have to admit them in Egypt too. The alternative, which looks simpler, is to say that Danubians had an east Mediterranean mentality.

Now Dr. Matz further contends that the Danubian running spiral belt is only a logical derivative of a simpler motive, a zigzag-band encircling the vase. Here he agrees with one of the leading authorities on Danubian pottery. The late Dr. Schdz²⁵ concluded from a detailed study of the ceramic material that the Danubian spiral decoration was sprung from such a band that is often actually seen encircling early Danubian vases. But this decoration is skeuomorphic in origin. It was inspired originally by the sling of plaited grass in which the primitive gourd vase was carried.²⁶ Precisely similar imitations continued to be incised on gourd-shaped vessels of black carboniferous ware in Nubia till Middle Kingdom times, and from Yortan we have plentiful examples decorating equally gourd-like pots.²⁷

The gourd ancestry of Danubian pottery had been pointed out long ago by Schliz and Schuchhardt²⁸ and recognised as evidence of southern origin.

²² Cf. e.g., *Ath. Mitt.*, 1886, Beilage 2; Xanthopoulos, *op. cit.*, Pls. IV, 100, XI, 1904, a, XV, 455; Dörpfeld, *Alt-Ithaka*, Beilage 61, b, 3. Evans, *Palace*, iii, fig. 10.

²³ *Ibid.*

²⁴ Expressed by lines radiating from the base or centre of the vessel, but bent to

wind up it like screw-threads.

²⁵ *P.Z.*, II, p. 131.

²⁶ Sophus Möller in *Mém. Soc. Antiqu. Nord.*, 1920-25, p. 237.

²⁷ *B.M. Cat. Passes*, I, i, A28, A18, A52, A58, etc.

²⁸ *Z.f.E.*, 1906, p. 342; *P.Z.*, I, p. 51.

While gourds do harden to-day as far north as the Hungarian plain, the true home of gourd pottery admittedly lies south of the Balkans. Now that the "Danubian" spiral has been shown to be derived from a skeuomorphic pattern proper to gourd pottery, its claim to the name "Danubian" is plainly undermined. For the same mentality that evoked the transformation has just been shown, by the Egyptian blackware vase already cited, to be at home in a primitive east Mediterranean complex. Hence all the agreements between Aegean and Danubian fabrics can be satisfactorily explained on the assumption that both were descendants of a primitive east Mediterranean stock. The cultural movement up the Danube valley that we have demonstrated in Period II was merely a continuation of an earlier movement that brought the Danubians into the Danube basin.

In south Central Europe an almost complete hiatus separates the upper palaeolithic from the neolithic occupations. While the Aurignacian and early Solutrean phases are well represented even in Hungary and Transylvania, remains comparable to the Magdalenian of France are everywhere sparse, and south of the Little Carpathians virtually non-existent. The long mesolithic epoch is represented only by a minimal number of microliths. Hence the numerous peasant population, our Danubians, who occupied the löss lands so thickly by early neolithic times, must have been for the most part immigrants. They can only have come from the south-east, from that wide region east of the Mediterranean where, it is generally agreed, agriculture began. Proofs of such east Mediterranean affinities are provided, in addition to the gourd pots, by the use of the Mediterranean shell, *Spondylus galearopus*, for ornaments or amulets by all the Danubian peasants.

We must assume then that the neolithic population of the Danube valley came from the south-east, immediately from Anatolia, whence also the first settlers in Crete had come. Early infiltrations into Macedonia and Mainland Greece from the same quarter would be a reasonable and, in view of the extensive Anatolian penetration along the land route by Early Helladic times demonstrated by Beurtley, a necessary postulate. They would suffice to explain the resemblances at once to Danubian and to Anatolian wares noted on neolithic fabrics from sheltered corners of Greece and discussed in our first paragraphs.

Naturally the colonisation of such areas would be a gradual process⁴⁹ accomplished, not by a single migration but by a series of waves spreading from an as yet ill-defined centre. When the archaeological record begins effectively, we catch a glimpse, as it were, of a cross-section through that process after it had already advanced some way. On the periphery, in Bohemia and Moravia on the north and in Nubia to the south, the simplest gourd types of carboniferous wares mark the crest of the first wave; figurines just reach Moravia. Nearer the centre particoloured fabrics,⁵⁰ black only inside and round the rim, occur

⁴⁹ I have tried to explain it in more detail in *Antiquity*, I, as the advance of primitive cultivators who, through ignorance of manuring and fallowing, had to shift their settlements periodically as the soil became exhausted.

⁵⁰ On these and their distribution in Asia Minor see Frankfort, *op. cit.*, pp. 64, 74; his sharp contrast with Egyptian wares cannot, however, be maintained in view of Lucas' recent researches.

sporadically as far north as Vinča, Orulea Mare and Tordos,²¹ and then throughout Asia Minor to Egypt. Within a still more circumscribed area we have the ribbed and burnish-decorated wares. And close on their heels follow the pure Anatolian types with true handles, long spouts, cut-away necks, etc., so well illustrated in Vardaroftsa A. Hence Vinča and Tordos, as far back as we can trace them, are outposts, albeit not the farthest, of an immense cultural province whose frontiers once reached Upper Egypt.²² It is plainly a methodological fallacy to treat peripheral regions like Hungary and Serbia as cradle-lands whence the whole culture emanated. They fall into their right place and their complex relations with the Aegean world become intelligible once the original focus be displaced to the south-east as here proposed.

V. G. CHADDE

²¹ Hubert Schmidt had already compared the latter with Egyptian black-topped ware in *Z.f.E.*, 1903, p. 460.

²² Because by this time the continuity of the carboniferous gourd-ware provinces had been interrupted by the advance of a more

Oriental culture represented in Egypt by the Second Predynastic. The intrusion of Dimini culture into Greece presumably caused a similar but only temporary, interruption of continuity in Thrace.

ANATOLICA QUAEDAM

IV. HEAD OF AUGUSTUS MOURNING (PISIDIAN ANTIOCH)

A MUCH-DILAPIDATED head of Augustus (recognised as such by Mr. Hinks)¹ has this interest, that it represents the Emperor as unshaven. Another bust of Augustus which shows him with hair on his cheeks and chin is at Verona and is described by Poulsen (*Porträtstudien in norditalienischen Provinzmuseen*, p. 72), and other examples are known.

This head was found in excavating the church where the large iron seal of the three martyrs, Neon, Nikon and Heliodorus (published in *J.H.S.*, 1928,



FIG. 1.—HEAD OF AUGUSTUS FROM PISIDIAN ANTIOCH.

p. 46), was picked up. The hair is indicated mostly on the cheeks, extending down from the upper head in front of the ears, and again under and on the chin. It has been understood that the unshaven Verona bust represents the Emperor as mourning for the death of Marcellus, 23 B.C. The first impression made on me by the Antioch head was that it represented a man in deep sorrow; and on that impression I based my first erroneous idea that it was

¹ The correctness of Mr. Hinks's opinion is evident. He points out that Augustus is represented mourning on a paste in Vienna

(imitation turquoise); Delbrück, *Antike Porträts*, Pl. 59, 4.

the Man of Sorrow;² this may be recorded as having some interest in respect of the true identification with the mourning Augustus.

Two busts of Augustus have been found at Antioch, one published in *A.J.A.*, 1926, p. 125, and one here. Augustus was the founder of the Colonia, and naturally it was devotedly loyal to him.

On this identification Colonia Caesarea is proved to have been founded at the organisation of the province Galatia, 25 B.C. That date had been generally accepted; but recently doubt has been expressed by myself and others; and the question is asked, Was the foundation made later during Augustus's visit to Asia and his general reorganisation of the East, 20 B.C.? The later date must now be rejected; for it is quite improbable that a bust or a statue of the mourning Augustus would be erected in Antioch, if it were founded so late. In a colonia founded after Amyntas was killed and the news reached Rome (officially 25, but in fact not earlier than 24 B.C.)³ sympathy with the founder would naturally prompt the erection of a statue during his mourning in 23 B.C., but the mourning was soon forgotten, and in 19 B.C. a mourning Augustus was an anachronism.

The fact that the name Caesarea was used for the colony implies that Amyntas had already given the city this name: if the foundation had been in 25 (or 19) it would in ordinary circumstances have been styled Col. Aug. (like the other five Pisidian coloniae): the name Col. Caes. is used by Pliny, *N.H.*, V, 94, who used the Survey of Agrippa 12 B.C. The other Pisidian coloniae were founded in 6 B.C.

V. MEDICAL PRESCRIPTIONS AT HOLY PLACES

With the help of the late B. V. Head's paper in *Nom. Chron.*, VIII, 1908, pp. 1 f., it is possible to advance further in interpreting the medical prescription, which Sterrett copied on a large rudely cut stone in Pisidia, and which was treated in *J.H.S.*, 1928, p. 50. In its turn the Pisidian prescription aids in elucidating an Ephesian problem which Eckhel and Head and Babelon have successively treated. In *J.H.S.*, 1928, p. 50, I shrank from the word *σμβλωθεῖς*, but there can hardly be a doubt that this was intended, not *σμβλωθεις*.

Sterrett's text seems to be a recipe for preparing a poultice to apply to a wound; and my doubt whether the participle should be treated as a (dialectic) form from *ἐπεω* or from *σπεύζω* disappears: they are etymologically connected (the common stem meaning simply to cook): the poultice was prepared by boiling. I quote from Head's article the information which he collects from authorities on bee-lore. Oxy-mel (*ὄξύμελι*) was much used in ancient and mediaeval times as a cure for sciatica, gout and kindred ailments.

² This was stated only in conversation at the time, and never printed.

³ Amyntas was killed in the summer of 25: no campaigning in the high Taurus is possible except in the dry season. News would not reach Rome for nearly two months; the defeat of a barbarian king

would not be announced *pinnatis vultis*. However quickly plans were made, time was needed for the arrangements, the selection of veterans and their transport to Ephesus, and 350 M.P. inland from the harbour of Ephesus.

Bees-wax (κηρός) was used as a cosmetic and doubtless for other purposes, especially at Ephesus, where it was closely connected with the bee-goddess, who exercised directly or indirectly all curative powers and processes. The curative powers of bees-wax were best brought out by distillation, from which resulted oil of wax, which was believed to be an ideal panacea. Miraculous portents accompanied its preparation.

Some small bronze tesserae struck at Ephesus in imperial times, but not as coins, are known:

Obv. Stag kneeling with head turned back; beneath, ΚΚΩΠΙ: border of dots:

Rev. Bee within a circular inscription, ΚΗΡΙΑΙCΩΔΕΠΡΟCΠΑΛΛΥΡΙΝ.⁴
 A.E. 75.

Eckhel mentions a much larger example, A.E. III, reading ΠΑΛΥΡΡΙΝ. Two hypotheses have been advanced. Eckhel, as elucidated by Head, thinks that these tesserae were druggists' tokens issued to advertise a medicament compounded of bees-wax, as a specific against a malady called πάλλυρις. The varieties of spelling suggest that these words were popular terms, and that the tesserae were not scientific but for vulgar use.

Head points out the lack of evidence of a similar use of metal tickets in ancient times, but adds that this is not a conclusive argument against Eckhel's hypothesis. Followed by Babelon, *Traité des Monnaies grecques et romaines*, I, p. 680, Head regards these tesserae as charms (phylactères monétiformes dans les rites secrets du culte de l'Artémis éphésienne), inscribed with Oriental gnosticism; and he advances a further hypothesis, that they are bee-charms to bring home the bees when they are swarming and in danger of being lost to the owner: in May and June one used to hear in English villages people 'ringing home' the bees by striking metal against metal: so in Virgil, *Georg.* IV, 150 f. The πάλλυρις according to him is the new hive prepared for the new swarm, and the bees are invited to come to it by these charms. Head acknowledges this to be a mere hypothesis, as Eckhel's explanation is also; but he quotes Huxley: 'do not be misled by the common notion that a hypothesis is untrustworthy simply because it is a hypothesis.'

I would make a third suggestion, based on both these hypotheses, taking something from each, but varying from both. Kerillis (or Kerilis) is, as all agree, derived from κηρός, bees-wax: compare κήρινθος also so derived: as Head seems to suggest, κήριλις means oil of bees-wax (distilled). πάλλυριον should be taken in a sense differing from both: it is not the accusative of an unknown term πάλλυρις, but is a late form of πάλλυριον, a dialectic (Ionic) form of κολλύριον, which is quoted as a cosmetic or unguent. Ionic loved κ for π (as in κοίος, etc.; Ionic was the dialect used in medical treatises, even by Dorians like Hippocrates). A pallyrion was a poultice or an ointment.

⁴ ΚΗΡΙΑΙC also occurs. ΚΚΩΠΙ remains unexplained; possibly it is for *exōm*: "look," calling attention to the

advertisement on reverse. The spelling is late everywhere.

There must have been a drug shop connected with the Ephesian temple. The inscription on these tesserae is either, as Eckhel held, an advertisement of this official and hieratic establishment, or, as I suggest, a sort of ticket attached to jars of the preparation: it means 'oil of bees-wax, made according to the goddess-taught method and formula, (should be used) for compounding pallyrion.' Eckhel erred only in understanding 'against the disease pallyris.' The use of πρὸς in either sense can be justified: Eckhel's sense is on the whole less typical of the proposition than mine; cp. πρὸς ἡδονήν, to give pleasure.

The vendor and advertiser does not give his name; but by putting the stag and bee on his tesserae he tells that he is authorised by the goddess to sell the proper preparation. His shop was by the temple, and doubtless the compound was prepared under the direction of the priests and according to the prescription preserved in the temple.

Similarly, Sterrett's Pisidian prescription was inscribed on a holy stone; we remember that often in Pisidia rocks and stones are covered with votive tablets and representations of the god Sozon or Saozoes. Rocks, stones and trees were frequently sacred and marked as such; compare Homer's ἀπὸ δρυὸς (ἦ) ἀπὸ πέτρης, where παρθένος ἡ(θεὸς) τ' ὀαρίζετον ἀλλήλοισιν: they meet at the shrine (as nowadays they might meet at church). So also at the shrine of Men over against Pisidian Antioch the Physician Healthy (Hyginna) advertised himself in large conspicuous writing on the outer wall of the Hieron, facing the worshippers as they came down the steps and turned homeward along the Sacred Way. Hyginus's vow to Men was simply an advertisement: see *J.R.S.*, 1918, p. 128. Many made the long pilgrimage to the Hieron, four to five miles up an ascent of fully 1500 feet, to offer vow for children or health, or to give thanks for recovery, or for other piece of good fortune; e.g. several incolae dedicated their thanks on receiving the Roman civitas. Some parts of the Way were sacred to special deities; and the thorough-going Deisidaimon made his dedication and prayer τῷ προσήκοντι θεῷ as he passed (as Epimenides bade the Athenians make an altar to the local god wherever the sheep lay down). The idea is the same: Epimenides the Cretan stood half-way between the old and the new religion, the Anatolian and the Hellenic, the Chthonian and the Olympian. There was a river to cross on this Via Sacra, and there my friend Feizy Bey built his factory, and found in digging for the foundations a tablet of the usual style, a dedication, not to Men, but to the goddess of the river, Μητρὶ ποταμνῇ, by Decimus Valerius.⁵

VI. THE IMAGE OF CAESAR: AND THE AMAZONS

Boz-Eyük in the mosque: beside the great marshes of the Siblian country, where in late Byzantine time there was an idea that the Maeander

⁵ In the *Transactions of the Amer. Philol. Assoc.*, LVII, 1920, p. 229, Professor D. M. Robinson publishing this tablet suggests an alternative interpretation *Ἦες Μητρ*, a female form of the god Men: such an

interpretation would be false to the religious idea. Had it been possible, it would be a welcome example of a form *Mῆρ*, Greek equivalent of *Mamma*, the native Anatolian feminine of *Marman*.

rose (Cinn. 174) : the country then was Turkish and strange to the orthodox Christians.

ἐν τούτῳ τῷ ἡρώῳ κεῖται Παπίας Τυράννου ἰστανκ
 τοῦ Μοῖτα μετὰ γονέων καὶ συγγενέων· ἐπέγραψε δὲ
 τῷ μνημείῳ Αὐρήλιος Παπίας β' ὁ καὶ Κόιντος· ἰς δ(μνη-)
 μνημείον ἕτερος οὐ τεθήσεται, οὐδὲ συγγενῆς οὐδὲ ἑξω-
 τικὸς, πλέον Παπίας αὐτὸς ὁ ἐπιγράψας ἢ τέκνον αὐτοῦ.
 εἰ δέ τις τολμήσῃ θείναι τίνα, θήσῃ προστείμου
 leaf ἰς Εἰκόνα Καίσαρος ✕ Ψ N leaf.

Here πλέον for πλήν is not construed *cum genitivo*.⁶ The date is clearly indicated as A.D. 212. Aurelius Papias is a civis : his deceased father was not. The father is a Greek-speaking Anatolian, son of Tyrannos the son of Mytas. The tomb was a family heroön of considerable size, συγγενικόν, able to contain both parents and συγγενεῖς; but no more συγγενεῖς are to be admitted henceforth. The closing of the tomb to relatives, who had hitherto been admitted, is a noteworthy and unusual feature in this epitaph.

The son is a Roman : he has not inherited the right; obviously he acquired civitas in 212, when Caracalla's edict was issued : he is a colonus on the imperial Estate of Soublaion (which acquired the standing of a polis and struck coins under Augustus and Caracalla, Σειβλιανῶν). Soublaion has the adjectival form, τὸ Σουβλαίων (χωρίον), which indicates its status as an Estate (of the Emperor); and this status is confirmed by the words of the epitaph—the fine is due to the Image of Caesar. The coloni of the Estate looked to Caesar as the incarnation of their Lord and God on earth : he stands alongside of, or in place of, the god who had in old time ruled and guided the people of the land around the sanctuary : his eikon is his earthly presence among them.

In the Hyrgalean country, Hyrgaletici campi (Pliny, V, 113), which was also an imperial Estate, we find that the divine ruling power is expressed as Ἀπολλωνοῦ μακεδὸς καὶ Ἀμάζονας καὶ Εἰκόνα (where the words are hardly Greek); this Hyrgalean inscription is comparatively early, about A.D. 100; the date indeed, cannot be proved; but the barbarous character of language, thought and religion, not very far from the Lykós valley, point to the first century. Hyrgalean Apollo is the native Anatolian god, not the Hellenic, and with him are the Amazons of Cybele : compare Ἄρηι καὶ Ἀρείῃς mentioned in two inscriptions found at Savatra of Lyeaonia, a country which preserved the native Anatolian character later than Phrygia proper.⁸ In the upper

⁶ εὐσθ is used for οὐ; Papias did not know Greek well.

⁷ The vocalisation Sùbla, Sùblaion is noteworthy. Enthusiasm for Augustus and Gaius Caesar prompted Kallikles, a wealthy citizen, to pay for coins. Again, in 212, loyalty induced Menodotos and Allians (his wife) to pay for a considerable issue of coins with types Zeus, Athena, Herakles,

Hermes, Dionysos, Tyche.

⁸ The analogy was indicated to me by Professor Calder many years ago. Worship of the Beast and of his Image are spoken of as different; προσωπὴ τῆ εἰκῆς is a distinct cult (*Revelations*, XIII, 15; XIV, 9, 11; XX, 4); the Image has breath and speech (XIII, 15), as if a personal being.

Tembris valley we find $\Delta\delta\iota\ \kappa\alpha\iota\ \tau\omicron\iota\varsigma\ \beta\epsilon\upsilon\upsilon\epsilon\iota\tau\alpha\iota\varsigma$, where the Benneitai are either the population of the land of Benneus (god of the country Benneueko); or the priests of Benneus.

The position of the Image in the reverence of the population is illuminated by such allusions as these. This Eikon stood before the seer of the Apocalypse as 'the Image of the Beast': he stood on the seashore of Patmos and saw the Beast rise out of the sea;⁹ the ship of the imperial lord, which kept the lonely island in communication with the Roman world, seemed to emerge from the sea as it approached the island.

The final and complete proof of the Emperor's dominance over the Anatolian mind lies in the reception of the Emperor into the religion of the grave and of the Confessions. It is, however, remarkable that such indications are rare. I observed one trace in an epitaph, where punishment for violation is left to the local god $\kappa\alpha\iota\ \pi\alpha\tau\epsilon\rho\iota\ \theta\epsilon\omega$: the father god I take to be the Emperor. In an epitaph found in the outer wall of the Church of St. Eustathios at Konia, where worship was maintained until the last few years, a sacrifice of twelve bulls is mentioned: so great a sacrifice cannot be admitted: it must be a pretence.

With such pretended sacrifices must be reckoned the $\epsilon\pi\tau\alpha\ \psi\upsilon\chi\alpha\varsigma\ \alpha\upsilon\theta\rho\omega\pi\iota\upsilon\upsilon\varsigma$, mentioned in the epitaph on a large sarcophagus at Ermenek Germanicopolis of Cilicia Tracheia, published by Professor Callander (copy and squeeze). It seems quite impossible that the sacrifice of seven human beings at a burial service was permitted in the Roman Empire even though this region was very little affected by Roman custom. This must be a sacrifice of substitution; figures of some kind replaced human beings. Perhaps the word is $\psi\iota\chi\alpha\varsigma$,¹⁰ pieces of bread (which in Matth. XV, 26 f., Mark VII, 27 f. are $\psi\iota\chi\iota\alpha$, translated 'crumbs'; Hesychius gives $\psi\iota\chi\iota\alpha$, $\psi\omicron\mu\iota\alpha$). The sacrifices were apparently loaves made in human form, evidently a survival of human sacrifices at the grave.

Aurelius Papias, alternatively named Quintus, is a remarkable expression. Papias did not understand the nature of the Roman triple name or of the praenomen. The double name¹¹ was an Anatolian custom: here the individual name, the praenomen, is added as an alternative name with the formula usually employed to add a signum-name. Quintus with Aurelius is unknown in Anatolian usage; it apparently was a name or signum given to Papias in the

⁹ This punctuation, rejected by modern editors, seems infinitely superior to the text preferred by them.

¹⁰ $\psi\iota\chi\iota$ is *meat*, and *form*. (L. and S.). Hesychius has $\psi\iota\chi\iota\varsigma$ $\alpha\lambda\ \epsilon\pi\alpha\gamma\alpha\gamma\mu\epsilon\tau\alpha\ \tau\omega\ \delta\epsilon\sigma\tau\omega\ \tau\iota\mu\omega\iota\kappa\omega\varsigma$, with synonym $\psi\iota\chi\iota\alpha$. In the passages of Matthew and Mark, $\kappa\upsilon\omega\tau\epsilon\varsigma$ is wrongly rendered dogs. Dogs under the table would be an outrage on Eastern feeling: dogs were unclean animals; but puppies were permitted. Prob-

ably Christ said $\kappa\upsilon\omega\tau\epsilon$, throw to the dogs outside the house; and the woman repudiated $\kappa\upsilon\omega\tau\epsilon\iota\varsigma$; this makes an incident true to life in any village or humble home in Galilee or Asia Minor.

¹¹ The double name was usually stated with father's name, after the first and before the second name, and a signum was added with $\delta\ \kappa\alpha\iota$: e.g. $\text{Ἀπολλώνιος Ἀπολλωνίου Ἀττάλος ὁ καὶ Τρόφιμος}$, Buckler, *Inter. Script.* No. 142.

family.¹² The imperial praenomen and tribe¹³ were properly taken with the nomen. The Emperor ceased to belong to a tribe, when he became Emperor; and it is never added except in S. C. de Cyzicenis (*Eph. Ep.*, III, 156), but those who took his name took also the tribe to which he as *privatus* belonged.

It deserves note also that in the expression Αὐρήλιος Παπίας β', the *δὲς* applies to only the name immediately preceding: the son was Αὐρήλιος Παπίας Παπίου, not Αὐρήλιος Παπίας Αὐρηλίου Παπίου. This interpretation of the formula has been assumed by me to be right: the present is the clearest proof and example.

The father died without acquiring a Roman nomen: the son had acquired *civitas* and a Roman nomen when he put the inscription on the stele. There was, according to custom, only a few hours' interval between death and burial: the assumption of *civitas* could not be supposed to take place in that interval. There would, however, be a considerable interval between the death and the placing of the tombstone, and during that time the son acquired *civitas* and nomen.

It is clear that Αὐρήλιος here is a nomen, not, as I and some others have occasionally called it, a pseudo-praenomen. In *J.H.S.*, 1883, p. 23, when publishing an inscription mentioning about 90 Greek coloni calling themselves Aur. Papias, Aur. Gaïos, etc., I could safely argue that this implied a date subsequent to 212. How far it was safe to carry this reasoning has seemed doubtful; Heberdey has just investigated it carefully. Recent examples point to the following principles. (1) In 212 new *cives* in virtue of Caracalla's action assumed his nomen (and tribe). (2) The custom of abbreviating the nomen had already come into use, and gradually established itself as nearly universal among the new *cives*, who call themselves Aur., but consider this to be a nomen (so far as they understood what Roman nomenclature meant), not a praenomen. (3) When *civitas* became universal among freemen it lost its value, and the Roman name lost its distinctiveness. The praenomen, in particular, lost meaning. (4) In general, *cives* older than 212, who were Aurelii, used the praenomen M. (though this cannot be presumed to be invariable), whereas those of 212 and their children give the nomen alone, very frequently abbreviated, but not always. The use of Aur. in this way lasted through the third century, but died out after the fourth, becoming rarer as time passed. The name Φλαυριος and Φλ became fashionable in the fourth century.

VII. THE SITE OF LEAURA NOVA

In Professor Calder's criticism (*J.H.S.*, 1928, p. 220) I do not comprehend the drift of his opening paragraph; but the only point that concerns Hellenio

¹² It cannot be regarded as a true praenomen assumed with the nomen as part of the Roman name: the formula *δὲς* is decisive against this.

¹³ Kubitschek, *de Rom. Tribuum origine* (Abhandl. III des A.-E. Seminars, Wien,

1882), p. 115. The inhabitants of towns to which the Emperor gave *civitas* were assigned to his tribe, Julii in Fab., Claudii and Flavii in Quir., Ulpii in Papir., Aellii in Serg.

or Roman studies is whether or not the ancient site near Dorla was Isaura Nova. I mention first the points in which he agrees with me.

An ancient town or settlement was situated on a ridge (*ōgum*) stretching north and south on the east bank of a north-flowing stream: on the west (or left) bank of the stream is the village of Dorla (discovered in 1890), which occupied my attention much from 1901 onwards, as one of the most interesting places in Asia Minor. Dorla is built on a hill (the *mōs* sacred to the Goddess in Sallust). On the east bank is the long ridge on which was the 'settlement,'¹⁴ a fortified *kome*, not organised as a polis; Strabo, p. 568, says, "Ἰσαύρα, τὴν μὲν παλαιάν, (τὴν δὲ νέαν) εὐερκῇ (a lacuna in the text is well supplied by editors).

Strabo, mindful of the siege of Isaura by Servilius, mentions that the town was a fortress. Palaia was a natural fortress of greater strength, but Strabo mentions only Nea as strong. He had good information about Nea, but knew little about Palaia.

On the *mōs* was the sanctuary of the Goddess, and graves were clustered round the hill in great numbers; nearly a hundred are known, some important in the history of art. In 1890 and in 1904 some of these monuments were nearly hidden in the hill: many more would be recovered by excavation (*J.H.S.*, 1905, p. 163). The old 'settlement' on the opposite ridge was in 1890-1909 a large field partly cultivated; now, as Professor Calder seems to say, there are houses on it.¹⁵ As to the name of this town, apart from the clear evidence of Frontinus and Sallust, an epitaph (found in two fragments, one in the solitary mosque of the 'settlement,' one in the *mōs*) speaks of the deceased¹⁶ as the most beautiful youth among those that inhabit Isaura (written "Ἰσαύρα, through "Ἰσαύρα).

It is needless to repeat the exposition of the military operations by which Servilius captured Isaura; they were described in *J.H.S.*, 1905, *l.c.* Professor Calder does not dispute that account, except in one point: he denies that the Dorla stream ever carried sufficient water to supply the 'settlement': to him 'it is a mere speculation' that 'the hydrographical conditions were different in 75 B.C.' Even a 'speculation' may be true: knowledge grows by hypotheses. The general desiccation of Asia, however, is not a mere speculation, but a patent and acknowledged fact, about which Professor Elsworth Huntington and many others have written. I could give many examples from my own experience in Asia Minor (and in Cyprus);¹⁷ but it is needless to spend time in this. I cannot make the fact any more certain by a fresh statement. I can only wonder that any traveller in Asia Minor has failed to observe it. I have often pointed out examples of it to companions there.

¹⁴ Professor Calder prefers 'settlement' to 'town': *κώμη* is the Greek word used by Strabo.

¹⁵ He corrects my statement that the town 'is now uninhabited.' I might have said 'when I knew it, 1890-1909.' There was an old mosque in the 'settlement,' the

only building in 1890-1909.

¹⁶ Obviously the epitaph alludes to the town at which the grave is, not to some distant place. Calder admits that this 'is probable.' It may be taken as self-evident.

¹⁷ In Cyprus at second hand since 1878.

Professor Calder was present and heard Dr. H. R. Mill, a great authority, say at the B.U.S. on March 20, 1916, 'it is undoubtedly true that in the centre of Asia Minor, as in the centre of Asia itself, is an area where there is now considerably less rainfall than in the earlier days.' Professor Huntington, etc., attribute this to climatic change: others, such as Hilderscheid, Conder, Ankel, attribute it to deforestation and the folly of man generally. As to the fact all are agreed. The desert of Gobi, with its dead cities and its dead civilisation and vanished population, is a fact, not a hypothesis. The decrease of flowing water on the central Anatolian Plateau is a fact known to all who study the history of Asia Minor. I am ready to discuss this fully elsewhere.

We are agreed that Sterrett was right in denying that Palaia Isaura was besieged, but wrong in suggesting that Dinorna was the place besieged by Servilius. It is true that 'the two brooks there are dry in summer.' What weighed even more with me was that the military operations described in the siege are quite impossible at Dinorna: there is no mons outside the town; there are no fortifications; the 'brooks' could not be turned so as to deprive the 'settlement' of water. The 'brooks' at Dinorna have only an insignificant higher course of two or three miles, with no affluents; even in spring they carry very little water; the stream at Dorla drains a large extent of mountain land by many affluents, and must carry a considerable body of water, which is now *under the surface* of the Dorla valley: on this last point see articles by Professor P. Geddes in *Contemp. Review*, June 1897, p. 892, and by me, *ibid.*, Aug. 1897, p. 234.

It can hardly be supposed that he takes γῆν εὐτραχέα ἰσάουρα in the epitaph to mean 'the country Isaura': I apologise for even stating the supposition. The country was ἰσάουρικῇ, as Strabo, p. 568, says, and it contained two Komai, called ἰσάουρα. The epitaph of Zenobios speaks in poetic language of 'Isaura the strong town and the land that belongs to the town.' The people are Isauroi; the two towns are Isaura: their country is Isaurike. The name Isauria came into existence only when some kind of unity was established, first in Roman fancy, afterwards real and political.¹⁸

If Nea Isaura was not beside Dorla, what is the town that was situated there? The remains are more numerous and important than those of any other place in Lycaonia except Iconium.

After wide and careful exploration of the country round, I can assert that there is no other site where the operations described by Sallust and Frontinus could possibly have taken place; also that Strabo was peculiarly interested in Roman military operations in the Taurus region,¹⁹ and had evidently heard the accounts of soldiers who fought in them. On the north front of Taurus he describes with accuracy and detail²⁰ Isaura and the

¹⁸ Similar is the history of Pisidia, Pisidike, Pisidia (Klio, 1920, p. 376).

¹⁹ He is our main authority for the Roman-Parthian War in 58-63 A.D., and a useful subsidiary for Servilius's campaigns in 77-75.

²⁰ Strabo's statement about the range of

vision from Olympos fort in Lycia (captured by Servilius) would be correct if the word *was* were omitted; the four countries are visible but not the whole of any. The exaggeration was easily made and is easily removed.

Homanadenses; elsewhere he is vague and sometimes inaccurate. Servilius he mentions three times (pp. 568, 665, 671), Isaura Nova four times, Palaia once as a name. Professor Calder formerly made some good observations about knowledge gained by soldiers in those expeditions as influencing Ovid: I think that he has published them somewhere.

VIII. STREET SIGNS IN ANATOLIAN CITIES

A fragment of an Antiochean inscription may probably be restored

. . . curatORI
platearum et vicORVM.

Dedicated to a colonus who had the charge of the streets of the Colonia, the only reference to such an official. Two Plateae are known, Augusta and Tiberia, and a number of vici, Patricius, Veneris, Tuscus, Velabrus, Salutaris, Aedificius, Cermalus. To these we add—

1. Vicus Herculis. A bearded head in high relief, found in the excava-



FIG. 2.—HEAD OF HERCULES.

tions in the lower and northern part of the colonia, is represented in the accompanying photograph (Fig. 2). It was recognised by Mr. R. Hinks of the British Museum as a head of Hercules; and the identification carries instant conviction. The features are familiar from other works. The small size of the upper part of the head shows deficient brain power: he is the ideal 'bruiser,' perhaps good-natured, certainly dull of intellect. The skin of the lion's forepaws, passing round the neck, is knotted under the chin.

I took the stone from the first as a street-corner-stone; below this high relief there must have been an inscription which was not found, but which gave the name VICVS HERCVLIS or HERCVLANVS.

While the head is an imitation of a Greek ideal of Herakles, the god was the Anatolian deity, the toiling peasant-god of the native population; and this street and quarter may have been inhabited by working incolae (who must be distinguished from the aristocratic coloni).

2. Aug(usta) Pla(tea). The Plateae were open squares, and Augusta was evidently the forum of the colonia. The name is known from an honorary inscription erected to a [praefectus? alae] I Millariae, probably stationed in Palestine.²¹ The Place d'Auguste was the Agora of the pre-Roman city. The city was made free in 190, i.e. it was left to native government by the god Mannes and his priests. During this period the east side of the Agora was cut out of the rock into a semicircular Stoa, with the antron of the god inside a mass of rock at the centre (described on page 277). Aug(usta) Pla(tea) was never paved, but its drainage system was very elaborate, carrying the water that gathered here from the abundant rain and snow down to the Platea Tiberia.

3. Tiberia Platea. The name of the Platea was inscribed on a block²² which stood on the lower end of the northern balustrade of the *Scalae Augustae*, (if I may coin a name, which seems in itself natural), the great triple stairway that led down westward from the Augusta Platea to the Platea Tiberia and was part of a large plan of city improvement, executed about A.D. 15-20 as a memorial of the deceased Augustus. At the top of the *Scalae* stood a triple *Arcus*, forming the entrance into the Augusta Platea (as the Agora was now called): the Arch was in the centre of the west side of the Platea opposite the Hieron on the east. This *Arcus* was at once an integral part of the improvement scheme and a monument to the deified Augustus and his victories at sea and over the *Homaniadenses*. A block bearing a Capricorn in relief was disclosed in 1914, and was the first proof that the monument which we had found was a monument of Augustus. It was carried, with many other fragments, to the Museum at Konia in 1914, and Robinson has published a photograph (fig. 34 in *Art Bulletin*, IX, 1, 1925).²³

The new Tiberia Platea was a small but imposing 'Square' in the heart of the city, surrounded by public buildings and paved, but having shops or small houses on the northern side. Out of the Place de Tibère a street of considerable width sloped gently down westwards till it reached a broad hillock on which stood the Jewish Synagogue. This Synagogue was transformed during the fourth century into, or rebuilt from the foundations as, a Christian basilica church of small size and of quite unusual plan, with an enclosed semicircular apse, and a small side apse; placed obliquely at the southern edge of the principal apse, with which it communicates through a little door. This small side apse may be explained as a device to mark the

²¹ Cichorium, *P.-W.*, s.v. 1251, infers that an Ala I Mil. was probably stationed in Palestine both about 100 and 400; and he is supported by the Antiochian inscription.

²² Over the name of the Platea there was

some ornament or symbol of bronze: the hole in the stone where it was held is empty.

²³ Professor Robinson always calls the monument Propylaea, for what reason I know not.

hallowed spot where Paul and Barnabas sat on the usual seat appropriated in every Jewish Synagogue for strangers who desired to address the people when the rulers invited them to speak.

4. In Antioch of Pisidia, about half-way between the front of the Church of the Synagogue and the north Gate (where the Aqueduct enters the city).

[Name of an early colonus in dative has been lost.]

LIBERIS·EIVS·POSTERIS·QVE·EORVM·INPERPETVVM
 LV MNIVM·CVM·GRADIBVS·V·DATVM·EST

cum]²⁴ liberis eius posterisque eorum in perpetuum [interco]lumnium cum gradibus V datum est.

This inscription is engraved on one side of a block of architecture. On the opposite side is engraved in letters seven inches high,

✧ET✧SIGN!

There is also another fragment of the same architrave, bearing

IBVNALI

but the other side is broken and no letters remain. There was apparently a considerable open space immediately to the north on the way to the Gate. Presumably there was here a Platea or Forum: at one point there were five steps visible. A space between two columns with five steps in front was granted to the family and descendants of an early colonus: apparently some leading man among the first coloni. The form of **L** shows that the date is early. This inscription was evidently on the inside of the Stoa colonnade at the edge of the Platea (Forum Holitorium?): on the outside, facing the Platea, was a mutilated inscription in large letters ending

[cum? tri]bunali et sign[is].

Some digging at this point produced no result except to disclose the entrance to a house, apparently of considerable size, probably a public building. Natives uncovered these two architrave blocks, and probably took away some others, between June 1926 and April 1927. Any one in Yalowadj who wants good stones for building goes to the ruins and digs.²⁵

If the supposed Platea was a market, the intercolumnium and steps leading up to it were granted for business as a permanent possession to some colonist family.

5. VIC . . . In 1926 we found that a street led northwards out of the Place d'Auguste near its west end, and here was lying a fragment containing three letters only. Perhaps it is a Vicus whose name has perished.

6. Another Vicus erected an honorary inscription on a round cippus about 150 m. to the north-west from this point.

IX. AN INVESTED CULT OF KING ATTALOS

Professor Robinson found a broken inscription which he restores as an epitaph erected by [Eukrat]es, priest of Attalos the son of Eumenes, to his

²⁴ Perhaps [et] liberis eius should be taken as dative.

²⁵ My correspondents, after using Yalvac

in the modern spelling, have now settled on Yalavac as correct.

brother: only ω is left of [ἀδελφ]ῷ. This is impossible. It cannot be supposed that the priests who ruled Antioch allowed a priesthood and cult of a foreign (perhaps hostile) king to be created in their city. The only king Attalos son of Eumenes was Attalos III, 138-133, who was officially called son of Eumenes II (though he was thought to be son of Attalos II), who did nothing in his short reign that could merit a cult as a god in Antioch (if such a cult could be supposed to have existed there).²⁶ No title is given in the published restoration; but only a king would be deified in Hellenistic time. It is perhaps a dedication [Μηνί πατρί]ω by [.] η s, priest of the kindly god, to the god of his own country: but the fragment is too small for certainty; and other restorations are possible. Coins of Seleukaia-Tralleis before 190 have the legend Διὸς Λαρρασίου καὶ Διὸς Εὐμένου.

The two proposed texts are as follows: mine is merely an essay, proving that Professor Robinson's assumption of a cult and priesthood of Attalos son of Eumenes is quite needless: his restoration is in itself bad.

Εὐκράτης Ἑλιοδώρ-
ου γενόμενος ἱερεὺς
Ἀττάλου τοῦ Εὐμένου
τῷ ἀδελφῷ

. . . . ἥs Ἑλιοδώρ-
ου γενόμενος ἱερεὺς
τοῦ θεοῦ τοῦ εὐμένου
Μηνί θεῷ

Mr. Robinson dates this in 138-3 B.C.: I incline to a date 189.

X. TEMPLES IN ANATOLIA

According to Herodotus, II. 4, artificial Temples were invented by the Egyptians. They were introduced into Asia Minor through Greek influences or Roman. The original sanctuaries of Anatolia²⁷ were caves and open recesses in rocks and mountains, e.g. Steunos at Aizanoi, where the Temple is Roman: the cave is described by Anderson in *B.S.A.*, 1897, p. 55 (see Buresch, *Aus Lydien*, p. 159, a cave near Hierapolis, *J.H.S.*, 1883, p. 375, etc.). No built Temples except Roman have ever been found on the Plateau of Asia Minor, even at the great hieratic centres.

That Temples in Anatolia were caves originally is assured by three glosses in Hesychius: Κύβηλα· ὄρη Φρυγίας· καὶ ἀντρα· καὶ θάλαμοι²⁸; and θάλαμος· οἶκος· μυχός· νυμφικός οἶκος; and θαλάμη· τρώγη· κατὰδυσις. The house or home of marriage is the house or temple of the goddess, for the dead return to the mother who bore them, the goddess of the Limnai (*Iliad*, II, 855, often quoted), in her hole in the earth, or cave in the rock (where dwells

²⁶ Both Attalos I and II were sons of Attalos.

²⁷ Anatolia may be used as a synonym for Asia Minor: this is not quite correct; it excludes the country south of Taurus,

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i.e. Karaman, Karamania.

²⁸ In Κύβηλα the Semitic Gebel, Djebel Sonny in *Philologia*, 1889, suggested that Κυβη = Πη = Όπη; but this found no support.

the spirit of the mountain, who is the goddess herself.²⁹ In the fourth century hermits retired to the primitive sacred places, the caves: monasteries, or groups of hermits' caves, are found in secluded spots and deep holes.

At Dionysopolis, in a very primitive region of Asia Minor apart from the main lines of Hellenic influence, a small Temple was described by Dr. Hogarth in *J.H.S.*, 1887, pp. 376 f. Its extreme simplicity might suggest that it was Anatolian, unaffected by Greek influence; but it can now be proved to be Roman of the second century.

Dr. Hogarth briefly described this ruined Temple with a group of inscriptions found on the site or near.³⁰ The fragments were much broken; and at that time, when Anatolian epigraphy was in its infancy, the publication could not be complete. Exploration in northern Lycæonia has thrown much light on these texts. The republication of many in cursive in *C.B.*, I, 142 ff., left much to be done.

The date of the Temple can be gathered from two fragments, Hogarth (4), l. 4, and (10). The printed numbering of the numerous scraps is not quite exact: his (4) contains a line of a different inscription, then a blank line, and then a line which was engraved on the entablature of the Temple: and his (10) is on another piece of the same entablature. They are

ΥΛΙΒΙΑΛΛ³¹ and ΒΑΣΤΗΓΛΟ
ΓΝΗΓΑΝ

The name of the Empress Vibia Sabina is here evident: the whole may be restored as running round the Temple on all four sides in one line with a second line over the doorway bringing together the Empress and the dedicator. The introductory formula, a prayer for the Salvation of the Empress, is of the usual type (varying in different inscriptions). The names of the gods to whom the Temple was dedicated are gathered from local inscriptions.

[Μητρί Λητοϊ καὶ Ἀπόλλωνι Λαυβηνῶ ὑπὲρ εὐχῆς καὶ σωτηρίας καὶ αἰδίου.

Then comes the continuation over the doorway:

διαμονῆς Ὀυβιβίας Σεβείνης Σεβαστῆς Λαύκιος
Ουβιβιος Διογένης ἀνέθηκεν

²⁹ An example of religious continuity is the cave of St. George of the Linnai, in the form of a roughly hewn chapel in the rock, beside a great natural gateway over the northern Linnai in Piskia; close to the cave is a small old Phrygian monument of simple type. Τρωγλα was Anatolian, in Τρωγλεττα, Τρωγλοτόπη, etc. So also Βόλαρος.

³⁰ We made a rapid journey from Serai-Kauti railway station to the Phrygian Kings' monuments about Ballisaion and Metropolis

in 1887, passing Dionysopolis on our way.

³¹ My copy indicates (4) l. 3 as separate from (4) l. 1, which is not on an architectural fragment, whereas (10) and (4) l. 3 are on such fragments. The architectural measures are slightly different, owing to poor workmanship, but the simple style is the same, and only measurement shows difference. The two fragments were on different sides of the Temple. My copy puts (4) l. 3 immediately after (4) l. 1, but marks distinction between them.

L. [Vibius Diog?]enes was a freedman of the Empress, who managed her property. The latter part of his name, and the verb are placed under her name in lower line.³² He cannot be a freedman of Hadrian, as the praenomen does not suit. Sabina Augusta (Vibia Sabina) died in 136; the Temple was dedicated to the gods of the country; the Empress being the earthly manifestation of the Mother-goddess. Strictly she was Sabina Empress, but Vibia is retained because she was Vibia to her libertus.

It would be possible to restore the inscription as on behalf of Hadrian and Sabina, but this is improbable: the Empress was the owner, and her freedman was the manager. So the Killanian Estates further south belonged to an Empress, and ownership descended in the female line: see *C.B. Phr.*, I, ch. ix. Moreover, an inscription which was not seen by Hogarth suggests that one of Claudius's wives owned this Tehal-Ova property (see below, p. 283).

This little Temple stands on a rounded hillock which projects from the edge of the Plateau over the great cañon of the Maeander; it is surrounded by the cañon on all sides, and is connected by a narrow isthmus with the Plateau.³³ This hill, doubtless, is the Antechorion of an inscription; and it was the hieron of the whole district.

Probably the stele dedicated on the hill to Apollo Lairmenos by Charixenos (Hogarth No. 1) was placed at the Hieron before the Temple was built. Another Charixenos, a different person, appears on a coin of Dionysopolis struck under Tiberius; his father's name has not been read: Head has - - ΑΤΟΝ: Dr. Begling writes that he prefers ΕΧΑΙΤΟΝ, and that probably there was no letter before Ε: Head marks there traces of two letters.

Another case of a Temple in Anatolia is a supposed Temple of Augustus in Pisidian Antioch; but as all are agreed that it is a Roman work under the Empire constructed in a Roman Colonia the case is clear. I consider that there was here a rock-cut Hieron with Stoai and Antron, made 189-40 B.C. when Antioch was ruled by priest-dynasts, and that the Antron was covered by a Corinthian Temple about A.D. 100-160, whereas Professor D. M. Robinson contends that the Temple was built 'in the early years of the reign of Augustus and dedicated DIVO - AVG': he is convinced that it was not built in the years immediately following the death of Augustus. He does not take into account the inscription which he himself invents for the doorway. As we agree that the Temple is Roman, the matter only confirms my present point.

XI. THE PEOPLE OF LAIRBENOS

As in all other Theocracies of Asia Minor, this people passed through a long process of change, from a village population—a stereotyped crowd of

³² This arrangement conjoins the names of the dedicator and the Golden-Empress for whose salvation the dedication is made, and was evidently made purposely. As a worshipper approached he saw the names over the door; the rest of the inscription was engraved in a single line

round the other sides of the small Temple. The dedicator may be assumed to be the priest and *νεωκόμος* of the goddess: see Buresch, *Asia Lydica*, p. 18.

³³ The hill is the projecting edge of the Plateau.

peasants with a few simple artisans³⁴—through the period of Hittite and Persian conquerors, and the period of Greek and Roman cities founded by Kings and Emperors,³⁵ producing variety of occupation and character—followed by a change of religion, which caused still greater change. Then came a new time of Asiatic conquest, nearly successful from 641 to 965, successful from 1070 onwards, during which the people relapsed into a condition not essentially different from the original Asiatic stagnation. The period 400-800 A.D. has been treated in a paper now being printed in *Byzantion*, V, pt. 3, which shows that the changes in ecclesiastical organisation are largely a revival of primitive conditions; and this determines the present investigation into earlier times. Records in this region are not known earlier than about 200 B.C., but those recorded later often reveal the older character that was 'modernised.'

Certain names are characteristic of this region—*Leto*, *Lairbenos*, *Adrastos*—and certain ideas—*Kabeiroi*—and they mark out a district which has a geographical and an historical individuality. The central hieron was at *Hierapolis*, but there were others.

Lairbenos in himself is of little interest to us, but through him we know his people, who lived in a world that was young; and in their religion we recapture their primitive emotions and experiences.³⁶ The known facts are few; but, gathered into chronological order and connected by the thread of human action and divine purpose, they become history; and only as history do they acquire value.

The geography of the Region moulded the history. In a sense the geography is the history, for the Anatolian religion recognises the Earth-Mother as the origin of all things, who nourishes and teaches all her children, punishes them when they neglect her orders,³⁷ and receives them into her bosom at death. Her every form is sacred, for all manifest her nature and power. She is the life of nature, and her religion is pure naturalism as the people understood nature. Heaven³⁸ and earth are counterparts (see *Asiatic Elements*, p. 213).

The Maeander flows in a seismic crack in the main Plateau (usually about 3300 ft. high). The river, rising at the upper end of this crack, flows, as

³⁴ For example *victovot* (mason-carpenters), *ισοποτε*, *λεπτονοτοι* (makers of delicate ware?), *χολοτε* (*καλχιδον*, *αγγιτρον*), and one or two others.

³⁵ A new foundation practically always means a new site adapted to change of social and political conditions. This I have called Hirschfeld's Canon in *H.G.A.M.*, p. 91, because he first noticed it at Seleukeia-Agrai, though he did not generalise it.

³⁶ Since I wrote on this region, in many cases immediately after I published, many writers have treated it, and to their books I am greatly indebted—Cichorius and Juchacz, Head and Imhoof, Radet, Rostovtzeff, Bursach, Anderson, etc. The agreement of Imhoof and Head is to me

final in numismatic points, and very weighty in the relation of numismatics to history. The ready help of the officials in the British Museum has been invaluable to me since 1879, and is still the same.

³⁷ The punishment was disease, very often fever (an unseen divine fire). Confession and expiation must be made, when she gave warning thus: the punishment was the warning.

³⁸ *ἄρρο* is a Phrygian word meaning *sky*: hence is derived *ἀρροτε* (and we may add, *ἀροφάντες*, High-Landers; *ἀρροπος*, *ἀρροπος* and *ἀροφάντες* *Μέγιστον*, *Ὀψο*, the High Place). The lower zone, earth, should always be doing what is being done in the high zone, heaven.

described by Pliny, V, 113, through regio Apamena, regio Eumenetica, Hyrgaletici Campi, Caria (i.e. south across the lower end of the Lycus valley, and then westward to the sea): Pliny's authority assigned the low Maeander valley to Caria, and equally to Lydia.³⁹

A glance at the map shows that Pliny's description is good and complete; four districts or regions make up the river's course.⁴⁰ 1. Regio Apamena includes Aurokra or Aulokra (with its famous fountains Aulokrene, Rhotrini fontes, Rhokrene). 2. Regio Eumenetica,⁴¹ including Soublaion-Seiblia with its vast marshes, Okoklia, Attanasos, and Peltai: Πελτηνὸν πεδίων is Strabo's term for the great valley. 3. Hyrgaletici campi begin below Peltai and reach to the border of—4. Caria, i.e. the Lycus valley.⁴²

The Hyrgalleis⁴³ originally occupied the whole country round Tchukalek Dagħ, lofty as seen from the deep-lying Lycus valley (700 ft.), but mere hills as seen from north and north-east: its height is probably about 4500 ft. The country of the Hyrgalleis was one of the greatest districts (regiones, χώραι) in Asia Minor. The river circles round Tchukalek, and emerges into the Lycus valley under Tripolis.

The Lycus valley is a deep wedge-shaped cut in the steep side of the Central Plateau; sloping upwards in two steps. The upper step is the valley of Kolossai and Chonas, narrowing to the pass of Graos Gala which leads up east. Kadmos (8000 ft.) closes in the southern side: on the north is an ascent to Baklan-Ova (Lounda), leading round left to Dionysopolis, and right to the Hyrgalleis, Peltai, and Eumenicia. The lower step of the Lycus valley is much larger, and broader, closed in to south by Salhakos (Baba Dagħ, over 8000 ft.). The Lycus makes its way down from Kolossai in a gorge, picturesque but not deep, which was cut by the Archangel Michael to save Kolossai from being flooded. On the north the lower valley is closed in by Kotchelek or Tchukalek Dagħ (about 4500 ft., which is little more than a lump on the uptilted edge of the Plateau). A steep path zigzags up the almost perpendicular ascent to the Plateau, near the west end of the valley.

This lower valley is sometimes reckoned Carian, sometimes Phrygian, and by Livy (depending on an old authority) as Carian *ad Phrygiam vergens*. In Anatolian religious geography it was part of the land of Lairbenos. If we knew more, we might perhaps find that Kotchelek peak was a holy place with traces of a hieron. Tripolis-Apollonia, on the other Maeander bank, belongs to the Lycus valley. The upper end of the crack is water-worn, made by the water of the Maeander sources, seeking a way down to the sea. Below Peltai

³⁹ In V, 113 he assigns the low Maeander valley to Caria (*perangatur postremo Cariam placidus, etc.*), but in V, 110 to Lydia (*perflua flexuosis Maeandri amnis recurritibus*): these two passages seem to be taken from one authority and to imply that the river flows between Lydia and Caria.

⁴⁰ The description is evidently earlier than Agrippa's survey (12 a.c.). Pliny's authority was some Greek geographer; and if we could suppose that Eumenetica

is a later insertion for Peltona, Dikaiarchos is probably the authority: he is mentioned in Pliny's list of authorities both in V and in VI.

⁴¹ It is better to count Soublaion as part of regio Eumenetica.

⁴² Hence Kóvos, Comum, ranked as one of the celeberrima oppida of Phrygia with Kelsinai, Andria, Colossae, Carina, Cernine: V, 145: See *Byzantion*, V, pt. 3.

⁴³ On the spelling see note 45.

the seismic crack begins, and here we enter the tribe Hyrgalleis and the land of Lairbenos. The river, flowing W.S.W., reaches the crack and is diverted to flow in it round the mountain Tchukalek. From this point to the Lycus valley the tribe occupies the land, and the name of the god occurs.

The Lycus valley and the crack in the Plateau suffered very often from earthquakes. Dionysopolis suffered in every such disaster, and we may add on the south Themisonion, Kibyra and Agathe-Kome (Phylakion). This line of seismic action is different from the zone along the west coast—Smyrna, Ephesus, Sardis, Rhodes, and the shocks occur at different times as a rule.⁴⁴

This whole Region from the west border of Peltai downwards was religiously one in early time and reverted to its primitive unity in the Byzantine period. The seismic activity marked it as a terrestrial unity. Higher up the river was another religious unity called Attanasos, where Peltai and Eumeneia grew successively: still higher was the great city Apamea, the old and famous Kelainai, at once the seat of the god (Zeus Keleneus on late coins) and the Hellenic garrison city.

The Lycus valley adjoins the land of Aphrodisias and Tabai, another religious unity; and its western end (with Kidramos, Trapezopolis and Attoudda) presents much analogy to the Carian unity. Conversely, Tabai is once assigned to Phrygia by Strabo.

I use Hyrgalleis, Hyrgalla, as probably correct: the spelling with double A occurs rarely, and a weak authority gives double L in Pliny, V, 113,⁴⁵ indicating that the vowel was long; the termination -αλλα is frequent in Anatolia: Pammalla, Korudalla, etc. The Anatolian pronunciation was indubitably Hurgalla: upsilon was a Greek letter, exotic in Anatolia.⁴⁶

The old religious acts persisted as ritual, for no religious custom was ever intentionally allowed to lapse until Christianity became a destroying and renovating force. Names, personal and local, typically Anatolian (or Asiatic and Oriental, as Cichorius and Judeich say), persisted.

Leto appears at Hierapolis and Trîpolis: games Letoia Pythia unite her and Apollo-Lairbenos: Lairbenos and Leto are named at Hierapolis and Dionysopolis, and the surrounding villages: Amazons are mentioned here only in Asia Minor: the rare Archigallos occurs at Hierapolis and in two other theocracies where the most primitive conditions were preserved, the Tekmoreian and the Oroumdian (also that priest must be restored at Pessinus, as origin of the Roman).

I add a few inscriptions to illustrate the religion, choosing some which are imperfectly presented in my *Cit. and Bish.*, I, Chs. III, IV, VI, and in Hogarth's 'bahnbrechend' article on *Lerminus* in *J.H.S.*, VII, 1887.

(1) *C.B.*, No. 32 shows the goddess between twin Kaberoi: drawing in

⁴⁴ Twelve cities on the western seismic zone suffered in A.D. 23. Kibyra (etc.) suffered a year later; all were included in the imperial relief and on the monuments at Rome (lost) and Puteoli. Rhodes suffered under Pius, and Laodicea, etc. a year or two later in 131-2.

⁴⁵ Compare Kastaballa-Hierapolis of Cilicia, where double A occurs rarely; but evidently the second element was bāla, balla.

⁴⁶ Compare Plinius's spelling Ludas, Surus, Tuestes.

Asiatic Elements, p. 213: fragments of an inscription with two reliefs underneath.

Leto of this land of Lairbenos was the Ephesian Queen Bee: her body is a great ovary rudely assimilated to human form.⁴⁷ The Khabiri were the gods of the body-guard of a Hittite king: the guards (Khabiri and also Sagasi), do the will of the king and execute whom the king would slay. The Kabeiroi were called by Greeks and grecising Anatolians 'the Twins,' Castor and Pollux, Dioskouroi: under this last name they are mentioned in Anatolian inscriptions (e.g. at Mithia of the Oroandeis, 'Highlanders,' Sterrett, W.E., No. 277): the goddess between the Kabeiroi is then called Helena, and the three are frequently represented on Pisidian coins (see Hill, *Br. Mus. Cat.*, p. cvii) and in a relief at Konia (Buckler in *J.R.S.*, 1924, Pl. I, 5).⁴⁸

The inscription and reliefs (two small reliefs lost) may record the presentation of a crown to a Phratra (like the following) or perhaps to a Paraphylax.

ὁ δῆ-	radiated	μος ὁ Μο[στυν-	lost	ἔων καὶ
οὐ ἐλ-	head	ς τὸ σύγγρ[αφ-	symbol	οὐ στή-
λη καὶ		στεφάν[ω ἐτίμ-		ησαν
		[τὸν δεῖνα κ.τ.λ. or a plural idea]		

Here the religious type is chosen to stamp with divine approval the presentation of stele and crown. τὸ σύγγρ[αφον] seems to be used like ἐνγραφον at Hierapolis,⁴⁹ the list or schedule of persons; οὐ εἰς τὸ σύγγραφον ἐγγεγραμμένοι would be the full expression; perhaps σύγγρ[αφον] implies that the list was engraved on this stone, while in Judeich 195 the list ἐνγραφον was not on the stone but in the Archives: σύνγραφον = the schedule accompanying; εἰς and ἐν are confused in later Greek.

(2) *C.B.*, No. 32, dating about A.D. 100,⁵⁰ is a list of contributions to a religious association: most give 10 denarii, one 30, one 25, sums implying that the denarius had not deteriorated much by depreciation of the currency: a few contribute something in addition. The contributions (205 den. and the priest's) are for an erection which the priest dedicates, statue and altar with the platform on which they stood: the statue (ἀγαλμα) was probably of the goddess, not of the Emperor (εἰκὼν usually).

The hereditary priest bears a full Roman name, C. Nonius Apollonii F. Aniensi Diophantos. Speculation is free about the time and donor, but probably he acquired civitas and did not inherit it: civitas was not often

⁴⁷ In *Röm. Mitt.*, 1900, p. 200 f., Meunier pointed out that there is no nipple in the 'mammas,' and that the want is extraordinary, as the goddess is the nourishing power: he explained the want as caused by a robe; but the figure is nude. Ova, not mammas, are represented.

⁴⁸ The relief is from Sinda (Istanos) in Pisidia (Konía Vilayet included Sparta and district. It was cut in 1922). The relief here is, as Buckler sees, the Mother God-

dess: but Meunier calls her Helena. The horsemen are evidently Kabeiroi.

⁴⁹ In Judeich No. 195, κατὰ τὸ γεγραμμένον ἐνγραφον τὸ ἀποφαντικὸν περιχεῖται, money to be given to persons whose names appear in the schedule or list: this list would be attached to the antigraphon deposited in the Archives.

⁵⁰ Ἀλεξίδωρος should be Ἀλεξίδωρος, ἀρχιεπίσκοπος. εἰς should be ἀπὸ.

given before A.D. 100 in such a backwater district: perhaps Diophantos was the first Roman civis there.

There was no relief with this inscription, which was probably engraved on a stone in the platform on which the altar and the statue were placed. The platform was large enough for the priest Diophantos to stand beside the altar and pour libations on it.⁵¹

The list of names is interesting and largely connected in some way with the service of the hieron: the list is a σύγγραφον (alluded to above).

One contributor, in addition to his 10 den., gives a wine-party (οἰνοπόσιον): the same word should be restored in an inscription of Nikomedeia (*Russ. Arch. Inst. Constantinop.*, II, p. 112).

Ζώϊλος καὶ Ἑρ-
μογένης οἱ Ρού-
φου τὸν βωμόν
4 καὶ Πωλλίων
Μάρκου ἀνέθ-
οντο θεῷ Ἑρ-

σιανῇ δῶρον
8 δόντες οἶνο[π]-
όσιν κὲ γυμνα-
σιάρχῳ κώμ-
ῃ Τενβῶν⁵²

(3) The power of the god rested on antiquity, custom, and superstition. When illness struck an individual, especially fever, the unseen fire in the body, he searched his conscience to find where he had sinned, confessed,⁵³ made atonement, and recorded the circumstance as an example, ἐξεμπλάριον, ἐξομπράριον, ἐξοπράρειον. The sin was commonly some disregard of ritual obligation or ceremonial purity, also ἐπισορκία and betrayal of trust. The Confessions are generally made by peasants, humble and uneducated.⁵⁴

Among the Confessions one stands out: the confessor is liable to prosecution, whereas other confessors are punished by the god for offences of ritual; yet in this case the confessor lays special stress on religious authority and includes the Emperor's Image (see p. 267), which shows that the offence implied disloyalty. Nothing but Christianity fulfils these conditions: this is a Recantation. I cannot restore the barbarous language entirely. I for P in Λερμηνός.

μέγας Ἀπόλλω Λερμην(-
σοφρον ἱερὸς, κολεθεῖς
ἐπὶ Ἀπόλλωνος Λε[ρ]-
4 μηνοῦ δεῖ τὸ ἑμαρ-
τηνκένη ἱποιστριφθῖς Ν
ΕΙΔΕΛΑΣ τήνκλήσε ἱπο
κεῖτο Γζηνειδας Ἀπο[λ]-

λωνου μάκεδος καὶ
Ἀμάξονας κα[ὶ] Εἰκό[γ]-
α ΧΕΐΔΑΙΕ ἐξομολ[ογ]-
ησάμενος εἰσπηλογ[ρά]-
φησα παραγέλ(ω)(ν) μηδ[ι]-
ς [κ]αταφορήσει ἐπεὶ

⁵¹ Read *Avos* for *av*, [δ]vs.

⁵² The published text has in 4, Πωλλίων, and in 8, οἰνοπόσιον (explained as οἰνοπόσιον, an unknown word). The word *av* should be restored in an inscription of the Axyion, *M.A.M.A.*, I, No. 162; where Professor Calder reads *av*; I read an imperfect N. The photograph shows N, not M.

⁵³ *av*λογεῖν: in H. 18 read [δ]μολογῶν

rather than [δ]μολογῶν.

⁵⁴ Zingerle first saw that *av* was needed where Hogarth and I were convinced that the stone has Π certainly. This exemplifies a class of errors due to climatic conditions: a line on the stone is lengthened by moisture freezing. In this way Π becomes Π.

Ἀπόλλω vocative? : κολ(α)σθεῖς : διὰ : ἡμαρτηκέναι, N expressing nasalization : ἰποιστριφθῆς, confusion of τρίβω, στρεφω, part. pass. : τῇ ἐνκλήσει : γῆνηιδας for ξυνειδώς : παραγ(γ)έλ(λ)ω loses final N before μ : ἐπεὶ followed by a variation of the usual warning. Mr. Buckley and Professor Calder aided many years ago.

(4) A slight correction of a published inscription of Dionysopolis sets it in a new light : at Bekirli : on a round cippus (*I.G.R.*, IV, 756 = *C.B.* 29).

ὁ δῆμος ὁ Ἱεραπολεϊτῶν
καὶ ὁ δῆμος ὁ Διονυσιοπο[λεϊτῶν
καὶ] ὁ δῆ[μος] ὁ Βλαυνδέων
καὶ τ[ὸ] κοιν[ὸν] τοῦ Ὑργαλέων
πεδίου blaivk éteimhsan
Κοῖντον Πλαύτιον Οὐενοῦστον⁵⁵

This was published in *J.H.S.*, 1883, p. 387, with Οὐεν[ῶκα], a conjecture due to the idea that a proconsul was meant. Venustus is now certain. He was a freedman, a procurator in charge of the large imperial Estates, libertus of Plautia Urgulanilla, divorced wife of Claudius, mother of Drusus and Claudia; so Claudius Clemens (*C.B.* No. 66), Claudius Hermogenes (*C.B.* No. 32), were Libb. Procc. of Claudius or Nero. Her libertus passed to her children, and from Claudia he came to be Nero's property. The date is thus assured. A number of imperial liberti and libertae are mentioned in the inscriptions : Claudian as above : Flavian liberti Epaphroditus *C.B.*, I, 65, Agathemerus *C.B.*, I, 65 and 33.⁵⁶

(5) Anderson published in *J.H.S.*, 1897, p. 411, a decree issued by Hierapolis ordering that parmytlakes should receive from the villagers only wood and chaff and lodging : all else ἀπ' ἐαυτῶν(!).⁵⁷ Exaction of money and gifts by the police⁵⁸ is always a danger in the East. The official guardians of peace and order degenerate easily into brigands; and the avowed brigands become the friends of the oppressed population. It is easier to exact from the law-abiding than to hunt criminals. Such was the history of the frumentarii and other agents of the central power in the Roman Empire.

In this decree fine and restitution are prescribed along with another penalty : offenders are debarred from accepting honorary decrees and crowns from grateful villages. Examples of this custom are mentioned in the sequel : it is one among many proofs that the Anatolian villages exercised some degree of communal action.

(6) H. 22. A fragment of a law stating the rights of owners of vines

⁵⁵ Correction kindly sent by Mr. Buckler.

⁵⁶ Some might be taken as natives who gained civitas, but I reject this view : civitas would rarely be conferred in this period and this hardly romanised Region.

⁵⁷ αὐτ' L. π is often written for φ, and vice versa, in Anatolia.

⁵⁸ The imperial police and secret service of the third century (and even late second) were more dreaded than the criminals : they had great opportunity under pretence of exacting contributions for Imperial purposes (καλλήματα).

(δεσπόται ἀμπέλων) against trespassers, who injure the vines, break them, or steal, or allow their oxen or sheep or goats to do any harm. This is an example of the way in which old custom hardened into formal law that could be enforced by a court. Under the old system the god judged and decided according to custom. Under Rome there were courts of law. There is perhaps an anticipation of modern custom, viz. that a passer may eat as he goes, but must not carry away grapes.⁵⁹ Paraphylakes who have summary jurisdiction and right to flog slaves are mentioned.⁶⁰ Compare a similar fragment in Africa, published with commentary by Schulten in *Festschrift zu Otto Hirschfeld's LX Geburtstag*, 'Process gegen Weidefrevel.'

The unfenced vineyards were private property, not communal. I have observed no trace of communal land in Anatolian custom. All land belonged originally to the god: 'the earth is the Lord's and the fulness thereof.' The land was taken by conquerors from the god; but usually there was a compromise: e.g. the conqueror seized one-third. Two-thirds remained to the god and his servants, the conquered people. The servants owned as long as they cultivated the land, with certain dues and portion of the crop to the god (and his priests). Absolute ownership of their portion was assumed by the conquerors; but this was modified by the inability of the soldiers to cultivate the land. Capital had to be borrowed to work the farm, and the only lender was the god who was banker.

We must understand that the countryside was given over to vine-growing: there were paths among the groups of vines: the shepherds were not driving large flocks (as in a pastoral country), but the small numbers needed to supply milk. Sheep's milk or goats' was mainly used, not cows' milk.⁶¹ Cows were not and are not much kept, as there is rarely grass on the plateau: in the summer the hot sun scorches grass: goats and sheep live on a low plant which grows on the plains, but cows do not eat it. Oxen were kept, not cows.

(7) *C.B.* 60, II, 37. Half stele: two ears in relief in the upper corners, making the first three lines very short.

The stone has been cut in half, as frequently happens, and the left half is restored symmetrically.

B|A
A πο|λ λ-
ων|ιδου
ὕπερ σω|τηρι-
ας εὐξ|μένη
ιστήλλ|ην ἀνέ-
στησεν|

The lady grew deaf,⁶² and prayed for cure. The common Anatolian name Ba suits exactly; so would Να, Μα, Τα, but these are rare. Ba was evidently

⁵⁹ Hogarth in *J.H.S.*, VIII, 1887.

⁶⁰ In L. 6 read: βασιλῆες ἢ θ[εο]μεταξ.
cattle large or small (Bookler): in H ἑκατόντου
δ[ιμήν].

⁶¹ Such is the case now in Greece, or was in 1881.

⁶² One ear would indicate local injury: two ears deafness. See note, p. 287.

of priestly family. It will be noticed that prayers, and inscriptions of higher order are under priestly names (e.g. *C.B.* 30f, 34f, etc., while those of a lower type are made by uneducated peasants.

(8) *C.B.* 54, H. 20. The following is broken into two unequal parts, but the break was irregular, not made carefully by a mason. A more probable (and interesting) restoration than in *C.B.* is now suggested: Apollonios had been wounded in the heel: his brother⁶³ and he pray for a cure.

Ἀσκλη[ς τε καὶ Ἀπολλώ-
νιος Ἀ[πολλοδότου
ἱερός(ς)]ἀνέστησαν στήλην
4 ὑπὲρ Ἀπολλωνίου πτέρ-
ναν τραν[ματισθέντος εὐξά-
μενοι Ἀπόλλωνι

In l. 5 ligatures shortened the line: the copy has part of υ certain at the end: τρώ[πεζαν is impossible.

(9) *C.B.* 20, H. 29. In A.D. 137, August: the Theoi Sebastoi are not the deified Emperors of Rome, but the living gods Hadrian and L. Ceionius Commodus. This is an imperial Estate, and the lords of the Estate are the owners. Ceionius was adopted in 136, with trib. pot.; he was consul in 137: statues and even temples were erected to him after his death, Jan. 1, 138. Motella (Medele, Byz. Metellopolis and Pulcherianopolis), as property of the god, passed to the Roman Emperor (*H.G.* 347, 449).

(10) H. 28, at Keuseli near Medele, lνδ.δ' κ(ε) μη.α' ιζ'.(ι) ἀνέστη τὸ θυσιαστήριον ἐπὶ Κυριακοῦ τοῦ θεοφιλεστ' ἐπισκ': probably fifth or sixth century. Another Bishop of Motella (Metellopolis) was Michael, A.D. 557 (*J.H.S.*, 1883, p. 393, where he is wrongly assigned to Anastasiopolis).

Epitaphs are not numerous in the middle Plain. This is in marked contrast to the general Anatolian custom, where the preparation of the tomb is the first duty in life, and epitaphs are 80 per cent. of the inscriptions. In the Hurgalleis the facts of life and society and the direct relation to the gods bulk far more largely; and this suggests that the country of Laïrbenos was peopled by a distinct race.⁶⁴

Emancipation of slaves or fosterlings was frequent.⁶⁵

(11) The following is restored *exempli causa* ⁶⁶ (taking l. 1 as a heading;

⁶³ If Apoll[onios] was the father the phrase would have been 55. The repetition is rare, but occurs in No. 31, 56.

⁶⁴ The People of Thioanta, 'unique . . . of very small stature and ugly yet not forbidding features, unlike any other people known to me, have apparently preserved unmixed and unchanged the type of some old race' (*C.B.* p. 124 f.). They are not orthodox Moslems and are suspicious of strangers. Compare Gelzer's account of

the late survival of pagans in Lydia, Phrygia, etc. in his *Pergamon im Mittelalter*.

⁶⁵ A θεπίος was frequently married to a daughter, in which case he seems to have been qualified to carry on the family religion like a son. This practice was common, and was a sort of adoption. If the expenses of his foster-parents were paid he was free.

⁶⁶ The general sense is certain: details and names uncertain.

but it may be the ending of an inscription placed higher on the stone): parts of two dedications, with dates restored as specimens: in 6, Δηλίῳ is unexpected: perhaps 5. Ἡλίῳ, omitting χεῖλια.

Ἀπόλλωνι] Λερμ[ηνῶ
 ἔτους . . . , μηνός θ? α? Κλ]ηονείκης καὶ [Τατα! γυνή μου
 καταγράφωμεν τὴν αὐτ]ῶν θυγατέρα [Τατιανήν ἐκτεθεῖ-
 4 σαν καὶ τραφεῖσαν κ]ατὰ ὄνειρον· εἰ δέ [τις ἐπενκαλέ-
 σει, θήσει χεῖλια δηνάβ]ια Δηλίῳ Ἀπόλλωνι
 ἔτους . . . , μηνός) . . κ]θ'. Αὐρή. Τρώειλος κ.τ.λ.

Examples of such registration of threptoi (threptai, threpta) are H. 1-8.
 (12) H. 2 should be restored:

οἱ δεῖνες κα]ταγράφ[ομεν τῷ θεῷ
 τὸν δεῖνα τὸν τε]θρεμέν[ον ἡμῶν
 εἴτις δὲ ὀλιγ]ωρήσει [τὴν θεοῦ
 δύναμιν ἢ ἐ]πεν[καλεῖ, θήσει κ.τ.λ.⁶⁷

(13) H. 8.

[εἰ δέ τις ἐπενκαλέσει, θή]-
 σει εἰς τὸν Κ]αῖσα[ρος φίσκον [δην.
 ἔτους . . μηνός) α' ἡ' Ζη[νύδοτος
 τοῦ δεινός καὶ ἡ γυν(ή) μο[υ τῷ
 θεῷ καταγράφωμεν τὸν ἐ]αυ-
 τῶν τεθρεμένον Βιδάνο[ρα· εἰ δέ
 τις ἐπενκαλέσει, θήσει] εἰς [τὸν φίσκον

When exposure is attributed to dream or order of the god, the adoption was evidently arranged between the τρόφιμοι and the parents. To avoid all question or legal difficulty as to status after the death of parents and foster-parents, the exposed child might be dedicated to the god: if the threptos was not set free, or formally adopted, he might come to be regarded in course of time as a slave. A formal declaration that a threptos was freeborn and free engraved permanently at a hieron or on a grave (which was a sanctuary) had the same effect.⁶⁸ It was required as a safeguard against the heirs of the adopter, who would not have the same affection for the threptos as the foster-parents felt. Old Anatolian usage put threptoi between free and slave; but Roman law knew no intermediate category, and varied much in its attitude to threptoi: one thing was certain: the threptos must be either a son or a slave. As Mitteis says, on the *Syr.-Röm. Rechtsbuch in Abhandl. Akad. Wiss.*, Berlin, 1905, p. 57: the law is to leave the foster-father to determine if he wishes his threptos to be free. The inscriptions show that this imposed on him the duty to make his intention clear during his lifetime. Even though the threptos had been treated as a son, it was safer to

⁶⁷ τῷ θεῷ is not used in these documents: only τῷ θεῷ(ι)νός.

⁶⁸ Example *M.A.M.A.* I, No. 133, when rightly read.

give him to Apollo than to leave his fate uncertain; thus manumission by gift to the god was often practised, but this strengthened the idea that the threptos was a slave until set free. Such difficulties occur when loose popular custom has to be applied according to hard-and-fast law. A systematic monograph on the Anatolian threptoi is a desideratum.

W. M. RAMSAY.

Note on p. 284. No. 7. Mr. Buckler prefers to interpret the ears as alluding to the god listening favourably, and compares the English 'bow down thine ear.' In this he may be right. Epidaurian inscriptions may be held to favour his interpretation. Here the rude reliefs show affected parts of the body; when fever is the sickness, a hidden fire, it cannot be indicated. It is certain that two ears were shown in No. 7, although one is restored. The English phrase 'incline thine ear' points to the natural action of a man listening intently; he turns the ear to the sound. Antony says to the assembly 'lend me your ears.' I state both views and leave others to judge. Other suggestions made by Mr. Buckler I have accepted with gratitude.

AN ATTIC INSCRIPTION OF THE ARCHIDAMIAN WAR

I.G. I². 294, 299, 308.

THESE three numbers in the Corpus are parts of one inscription, which evidently contains the expenditure of Athens's Treasurers for some portion of the years 432/1-427/6. 294 is in two pieces, of which fragment *a* had not



FIG. 1.—*I.G.* I². 308 and 294.

apparently been seen since Lolling's time, and *I.G.* I². gives it from Lolling's not quite correct copy: Bannier had observed with great acuteness from the published copies that fragments *a* and *b* of 294 join. Fragment *a* has not, however, been lost, but is safely in the Epigraphic Museum at Athens, E.M. 5173, a very substantial piece of marble, preserving a small portion of the

inscribed face, and a much larger portion of the uninscribed back, of the stone.¹

Bannier's proposed join is, of course, brilliantly justified: there is a large contact surface between fragments *a* and *b* of 294. But there is also a much slighter, though unmistakable, contact surface between fragment *a* of 294, and 308; and these three fragments, whose catalogue numbers are E.M. 6748, 5173, 6707, are now bedded together in plaster in the Epigraphic Museum (Fig. 1).²

A fourth fragment, *I.G.* 1². 299 (E.M. 6706) does not make direct contact, but I believe that it belongs to the same stone and that it can be placed



FIG. 2.—*I.G.* 1². 299.

¹ In fragment *b* line 10, *xece* is wrong: the stone has *xeot*.

² I joined 294*b* and 308 in the autumn of



FIG. 3.—*I.G.* 1². 634.

1927, guided by the similarity of the writing. About a month later, I came by accident on 294*a*, which provided actual contacts with

the other two. Very soon after I had to leave Athens, having noted three or four further fragments which seemed similar, though I could not fix their places: they included 299, and also *I.G.* 1². 634 [*vi* *Abvav* *ai* *epi* *l* *ouca*], though I have made nothing further of this, nor exactly checked the size of the writing: perhaps it comes from a document of the Logistai of 426. Since then, I have had much correspondence with Mr. B. D. Meritt, to whose suggestions most of what is of value in the following paper is due.

I must further thank Dr. Leonardos for the most indulgent hospitality I enjoyed in his Museum; and Stavros, the Phylax, who helped me bed my fragments in plaster.

We, *Tamiai* of *Athena's sacred Treasure*, handed to the *Trieropoioi*, *Y* and his colleagues, engaged in —, in the *prytany* of (*Antiochia*), the (*fifth*) *prytany*, (on the *fifth* day thereof, 50 *Talents*).

We handed to the *Trieropoioi*, in the *prytany* of (*Aiantis*), the (*ninth*) *prytany*, to *Y* and his colleagues, (on the 10th day of *Thargelion*, the 14th day of the *prytany*) 50 *Talents*.

The sum of the money paid out to the *Trieropoioi*, whilst *X* and colleagues were in office (100 *Talents*).

The sum of all the money paid out whilst *X* and colleagues were in office, — *Talents* — *Drachmas*.

Complete restoration of the first 7 lines would be so arbitrary as to be valueless. Line 2, ἐπὶ τεσ πάν]διονιδῶ[σ πρυτανειῶσ (ἡβ[δομας ?] πρυτανευοῦσα : line 3, το]ντο ἐδοθ[ε στρατηγοί(σ ?) : line 5, ἐπὶ τεσ—ιδῶσ πρυτανει]ασ οὐδο[σ πρυτανευοῦσα : line 6, τοῦτο ἐδοθε στρατηγοί(σ ? ἐπὶ—?) Ἀριστοτ]ελεὶ Θορά[ιαι, etc. : the *υ* in the early part of the line will be part of the word ἐσέλαινα. Most of this is already given in *I.G.* I². Bannier's supplement in line 6, Ἀριστοτ]ελεὶ Θορά[ιαι, is almost certainly right. He is the same as Aristoteles son of Timokrates, Strategos in 426-5 (*Thuc.* 3. 105), and Aristoteles of the Tribe *Antiochia* (to which the *Thoraieis* belonged), who was Hellenotamias 421-0 (*I.G.* I². 229, line 5), oligarchic Strategos in 411 (*Xen. Hell.* 2. 3. 46), and finally one of the 30 Tyrants¹³ (*ibid.* 2. 3. 2, Plato, *Parmenides* 127 D). In fact *Prosopographia Attica*, No. 2035 = No. 2037.

The identification of Aristoteles does not, of course, date the accounts here inscribed to the year 426-5, when Thucydides mentions him as Strategos. Bannier indeed proposes so to date them, but the borrowings of the year 426-5 are preserved in *I.G.* I². 324, lines 2-16, and show nothing like this total. The *Strategia* was iterable, both in theory and in common practice : Aristoteles was probably Strategos during most of the Archidamian War.

But Aristoteles' name, and the long datives (τρίεποιοίσι in line 13, another in line 11), and the very large sums involved, combine to make a date in the Archidamian War likely. Any date after 426 is excluded by the fact that we have the borrowings for those years in *I.G.* I². 324, and the totals are never even a quarter of the amount in line 9. Our year contains, evidently, the siege of Mytilene or part of the siege of Poteidaia.

The stones which have most likenesses to our stone belong to the very early years of the Archidamian War. The year's payments are arranged in groups, according to their destination, in *I.G.* I². 296, which may have had, like our stone, a final paragraph giving payments to *Trieropoioi*. That stone belongs to 432-1. Payments to *Trieropoioi* occur twice in *I.G.* I². 301, lines 1 and 17 (in both places there is a vacant space¹⁴ before the *Τ*, i.e. a new sentence begins with *Τρι*—) : this stone has never been certainly dated, but the form

¹³ In this list, the 30 are arranged in Tribes, the 3 of the Tribe *Antiochia* standing last.

¹⁴ Not indicated in *I.G.* I². I hope to publish a revised text of this stone shortly.

περιπολεσεῖ in line 35, with the long dative in the next line (-σι παρεδουεν), excludes the date formerly assumed, *e.g.* by Edward Meyer, *Forschungen*, II. 140, 412-1, B.C., or the even later date prepared by Beloch (*G.G.* II². 2, p. 349); and in line 22 we probably have Perikles' name.¹⁵

The restored stone, slight as the fragments are, deserves extremely careful study, for we are obviously at the mercy of hypotheses for the finance of the Archidamian War. I hope someone will improve my supplements or, better still, add new fragments. What with Mr. Meritt's text of *I.G.* I². 324, with Prof. Adcock's interpretation of Thuc. III. 17 (*Camb. Hist. Journ.* I. p. 319), with this stone and *I.G.* I². 301 and 296, and with further study of Kallias' decrees (*I.G.* I². 91 and 92), I do not despair that one day we may reach firm ground.

The Date of *I.G.* I². 301.

In the last two paragraphs above, I have referred to *I.G.* I². 301, and given some reasons for supposing it is of the same sort of date as the present document, *i.e.* the first years of the War. I have meanwhile published (*Num. Chron.*, 1930, pp. 335) a revised text of part of that stone. To the evidence of early date for 301, I would add:

(a) the Thasian Quota.¹⁶ This seems to exclude the possibility of Perikles (if that name be rightly restored in line 22) being the younger Perikles.

(b) the likeness of the repeated phrase κατ'α γεν και κατα θαλ[ατταν, line 38 (cf. line 62¹⁷), to Thuc. II. 24. 1, (summer 431) φυλακὰς κατεστήσαντο κατὰ γῆν καὶ κατὰ θάλασσαν ὥσπερ δὴ ἐμελλον διὰ παντός τοῦ πολέμου φυλάξιν. The cost of these garrisons does not appear as a separate item in any other extant accounts: if we find it listed here, I think it is because it has not yet become a routine expense. The garrisons are not established till after the end of the first Spartan invasion (Thuc. *l.c.*): they do not, consequently, appear in the accounts for 432/1, *I.G.* I². 296.

H. T. WADE-GERY.

¹⁵ Which would exclude Bannier's date (422-419), adopted by *I.G.* I². Perikles' name is not, of course, certain, though the name is evidently that of a Strategos.

¹⁶ Lines 114-120 (*Num. Chron.*, 1930, p. 338): 'from the year's revenues collected by ourselves, lumps of Skapte Hyla gold of a total weight of 3 minas: their silver value

is 30 minas, computed at the rate of 10-1.' See *Num. Chron.*, 1930, p. 24 (cf. also pp. 30, 33).

¹⁷ I would restore lines 61/62 *εξempli gratia* το ἐπὶ τοῖς ἑσῶν χρυσιδόχοις [ἡμῶν ἀργύριον] εὐκλειαν ἡμετέραν (5) ταῦτα εὐδοκὶ φυλαχσοῖ κατὰ γῆν καὶ κατὰ θ[αλ]άτταν.

THE REFUSAL OF CALLISTHENES TO DRINK THE HEALTH OF ALEXANDER

IN his recent article¹ on *The Hellenistic Ruler-Cult and the Daemon* W. W. Tarn regards the story of Callisthenes' refusal to drink the cup of unmixed wine at a banquet of Alexander's as apocryphal, having its sources, as he says, only in the later literature of gastronomy. His reason for doubting the authenticity of the story is that 'Chares in both versions (i.e. of the Banquet at Bactra, where the *proskynesis* was performed by all but Callisthenes) is clear that Callisthenes did drink.' Assuming for the moment that the story is true, he says of it: 'The Greeks as a rule disliked unmixed wine; and Callisthenes was thus able to veil his refusal to drink "The King" by saying that if he drank Alexander's health (in unmixed wine) he would be ill.' He argues that since Chares attests that Callisthenes did drink the King's health on the important occasion at Bactra, that Chares and probably Aristobulus, who are given as sources by Athenaeus, are both wrong in vouching for this remark, and the sole remaining authority Lynceus is only a third-century writer on gastronomy.

I wholly agree with Tarn's argument that on no occasion did the drinking of the unmixed wine have anything to do with the divine worship of Alexander,² but I believe that the remark of Callisthenes is well attested and entirely in character. I think that the connexions in which the story is told, twice by Plutarch and once by Athenaeus,³ are of very great importance and have been overlooked in the discussions of the remark. In two cases the story is told as part of the indictment of Alexander as a hard drinker, and once as an example of how great a fire of hatred a light jest like this can kindle. There is no indication that the occasion was that of the banquet at Bactra or a drinking party of any more significance than many which must have taken place before the Conspiracy of the Pages and after the Conspiracy. If we consider the riotous character of these Macedonian banquets,⁴ it is not strange that the austere Callisthenes would sometimes feel a disinclination to drink *akraton*, even from Alexander's own cup. And that physical disinclination is the cause mentioned by Plutarch in his version of the story.⁵ There Philinus supports the point of view which Plutarch combats in the *Life of Alexander*⁶—namely,

¹ *J.H.S.* xlviii. 206 ff.

² Cf. L. R. Taylor, 'The Proskynesis and the Hellenistic Ruler Cult,' *J.H.S.* xlvii. 63-62.

³ Plut. *Quaest. Conviv.* 623 F—624 A; *De colubenda ira*, 454 E; *Athen.* x. 434 A-D.

⁴ Cf. the *depræsentia* during the banquet at the banquet of Caranus, and the wild

scramble for drinking-cups. When Caranus begins the drinking in little cups, it comes as a relief to the guests, an *ἀντίδοτον* τῆς *πρωτοῦς ἀπορρομένης*, *Athen.* iv. 329 E—330 C. See also Borvo, *Alexanderreich*, I. 14 f.

⁵ *Quaest. Conviv.* 623 F—624 D.

⁶ Plut. *Alex.* 23.

that the defenders of Alexander are wrong in saying that he did not drink heavily, but sat long in talk over his cups. Philinus, a Pythagorean friend of Plutarch, has extracted from the Royal Diaries entries to the effect that Alexander slept very often all one day and sometimes through the following day as well after the drinking, ἐκ τοῦ πότου. Next follows an excursus from Aristoxenus and Theophrastus on bodily heat and cold; then, returning to the subject in hand, Plutarch says: 'And it appears that Callisthenes also got into disrepute, ἐν διαβολῇ, with Alexander because he felt a loathing of the banquets on account of the drinking': ὥς δυσχεραίνων δειπνεῖν διὰ τὸν πότον. . .⁷ This evidently goes back to ἐκ τοῦ πότου above. He continues: 'For he pushed away a great cup, called Alexander's, when it came to him, saying that he did not wish to drink to Alexander and have recourse to Asclepius.' The paragraph ends: 'This much on the hard drinking of Alexander.'⁸

Schnabel, who sees rudeness and superciliousness in Callisthenes' remark, does not attribute it to the occasion at Bactra in which he is so much interested, but cites it as an instance of the lack of courtesy and the conceit of a Greek *litteratus* at the court of a king like Alexander. 'Als einmal beim Gastmahl in Gegenwart Alexanders,' etc. (*Klio*, 19, 1923-25, p. 123). Jacoby also does not define the time of the episode more definitely than 'wohl aus der letzten Zeit seines Lebens am Hofe' (*P. W.* 10, *sp.* 1677).

Very likely Alexander did not observe the failure to drink nor hear the remark in the uproar of the feast. He did not even at Bactra notice what Callisthenes was doing, until Demetrius, who was concerned to bring Callisthenes into disrepute with the King, called his attention to it. And it is clear from Plutarch's phrase that the remark was repeated to Alexander in malice, ἐν διαβολῇ. The word is significant in connexion with the charges made in *de adulatione et amico* (65, C-D), where Plutarch says that Medius the Thessalian, encouraged the flatterers of Alexander to 'bite' with the tooth of slander, δάκνειν διαβολαῖς. 'And so, in consequence of the scar remaining even when the wound was healed, Alexander destroyed Callisthenes and Parmenio and Philotas.' Plutarch continues: 'He gave himself up utterly to such men as Hagnon, Bagoas, Agasias and Demetrius, bowed down to, προσκυνοῦμενος, and arrayed and moulded by them like a barbaric image.' The expressions for slander used in the various passages suggest some common origin for the defence of Callisthenes. Plutarch blows now hot and now cold about Alexander, according to his sources, sometimes writing of him as ascetic and abstemious, and at other times describing his 'bivacuity,' πολυποσία, and other excesses. He speaks of the difficulty in which Alexander's better friends found themselves as to whether to flatter or not to flatter, 'as between the shame and the danger they were in a great strait how to behave themselves.'⁹ Probably one of the

⁷ The verb *δυσχεραίνειν* is frequently used of physical loathing and dislike of eating, drinking, etc. Cf. Aristotle, *H.A.*, 8, 8: *δυσχεραίνει τὸ πικρὸν*; Plut. *Mor.* 101 C: *δυσχεραίνουσι μὲν ποσούντι τὸν βρωμάτιον τὸ κακίστατον, et passim*.

⁸ These entries may refer to the last days only of Alexander's life. Cf. Plut. *Alex.* 76-78, and Wilcken, *Philologus* 53, especially p. 129.

⁹ Plut. *Alex.* 23. Evelyn's translation:

'flatterers' reported the remark to Alexander, δάκνων διαβολαίς as Medius¹⁰ suggested, and according to Plutarch it left its scar.

The story of the remark of Callisthenes is told in Athenaeus at the end of tales of the wild drinking before his death by Alexander with Proteas and others in the house of Medius. It is Ehippus of Olynthus, the countryman of Callisthenes, who is the source for the drinking-match between Alexander and Proteas, famous for his prowess as a drinker and much injured by the habit. Ehippus is the author of the 'poisonous pamphlet'¹¹ on the Burial of Hephaestion and Alexander, in which, Schwartz says, the aim was to show that 'Die Makedonen können nicht gebildet zechen, sondern sind schon vor dem Dessert betrunken,' and to prove that 'the King who would be a god and his friend whom he had declared to be a hero were vicious and blasphemous men.' One may hardly look for restraint in an attack on Alexander from a friend and countryman of the murdered Callisthenes, and it is probable that Aristotle also felt anger against Alexander for the death of his kinsman and fellow-philosopher. But there is nothing in itself improbable in the supposition that Alexander, who wished to excel in everything,¹² should wish also to be able to drain as great a cup of unmixed wine as Proteas and to do it as often. It was too much for him, Athenaeus says, and he dropped the ποτήριον δίχουν after the second draining and fell back on the couch. Then come the extracts from the Royal Diaries, which Plutarch also quoted in discussing the drunkenness of Alexander. This makes it appear that Plutarch's friend Philinus used Ehippus. Then comes a citation from the *Kolax* of Menander about a soldier drinking off a big gold Persian goblet of wine as stoutly as Alexander could. And then, on the authority of Nicoboule, it is related that Alexander, at the feast in the house of Medius, challenged the twenty guests present and received the same challenge from each of them, a drinking-bout from which he never recovered. The story of 'Callisthenes the sophist,' and his famous refusal and jest, is told at the end of the chapter, and told on the authority of Lynceus, Aristobulus and Chares. It forms a climax to the story of the disastrous drinking of healths which has been the subject-matter of the chapter and is intended to contrast Greek σωφοσύνη with Macedonian ἀκρατοπρέσβεια. The connexion shows that only drinking of healths of the usual sort in a banquet, and not a religious ceremony, is in question.

Berve¹² assumes a 'Götterspende' from the passages describing the banquet

¹⁰ Plutarch calls Medius the leader of the chorus around Alexander and the sophist-ecyphanius of those who were banded together against better men.

¹¹ Schwartz, *Callisthenes' Hellenika*, *Herodes*, 35, 1, 27.

¹² *Plut. Alex.* 4.

¹³ *Alexanderreich*, I, 14: Man begann mit der aus einer Opferschale gegossenen Götterspende, die von jedem Theilnehmer dargebracht (Chares, b. *Plut.* 54; *Arr.* IV, 12, 2; *Plut.* 70; vgl. de J. *Al.* p. 338 D) vom Könige anscheinend unter Trompetentusch (*Chares*, frg. 16) gewählt wurde.

In the first two references given here only drinking of healths is in question; in *Plut.* 70 there is the *σπένον* and the drinking match after the return from the funeral pyre of Calanus, and also the account of the wedding feast at Susa, of Alexander and Statira, at which Alexander presented each one of his nine thousand guests with a gold *φύλλο* for libation. Berve rightly recognises in his article in *Klio* (20, 1925-6, p. 181) that the expressions in Arrian's account, *σπένον* and *βραβειον*, refer to quite definite 'Trinksitten.'

at Bactra, and Miss Taylor believes that the mention of unmixed wine necessarily implies a toast to the Good Daemon (*op. cit.* p. 60). The drinking of unmixed wine at the banquet of Caranus is a sufficient refutation of the latter theory, and there is no suggestion of any libation or any religious ceremony of any kind in any of the accounts of the drinking, except the mysterious *πρὸς ἑστῖαν*, which no one has been able to explain satisfactorily. The last one to discuss the phrase, Dr. Farnell (*J.H.S.* xlix. 79ff.) speaks of a possible slight obeisance to the spirit of the hearth, with or without libation to her. In the passages about drinking healths cited by Miss Taylor and by Berve, the act described consists in Alexander's drinking the health of the man challenged and handing him the cup; the recipient then drains the cup, which has been refilled with strong wine. There is no statement in the passages in question, either (1) that a toast to the Good Daemon was drunk (Taylor), or (2) that a libation to the gods was poured out (Berve). The fact that the cup is called a great cup¹¹ indicates that to drink it off in the fashion described in Athenaeus might well send an abstemious man to the doctor. Moreover, the sip which was *comme il faut* in honour of the Good Daemon, which Miss Taylor (*op. cit.* pp. 59-60) assumes in the case of the wine which Callisthenes refused, would not have been sufficient to give point to his jest about not drinking for fear of having need of the services of Asclepius. The fact that the story is twice told in a connexion that attacks Alexander suggests that it is part of a defence that emanated from friends and countrymen of Callisthenes. It is highly probable that it is a true one. Callisthenes was a wit, and this is a good jest; the reason for his refusal given in Plutarch, *δυοχρεαίνων διὰ τὸν πότον*, that is, revulsion from the banquet because of the Macedonian manners in drinking, is doubtless the real reason. The jest was uttered as *εὐδωμῶ καὶ πρὸς δὲ* and twisted into a slight of the King, who probably had not noticed it at all, for various reasons, until it was brought to his attention by Demetrius. Later the story found a place in the writings against Alexander and his drunkenness, as an illustration of the way in which the Macedonian drinking habits affected a Greek. If Callisthenes had not been unfortunate, and if he had outlived the King, he would probably have been celebrated for his independence, wit and freedom instead of being criticised for vanity and ruddiness. It is clear that the Greeks found this remark witty.

Callisthenes drank the King's health at Bactra, but he did not always drink at Macedonian banquets.

GRACE H. MAURDY.

¹¹ The word *μέγα* is used by Plutarch and Arrian in the tale of the banquet at Bactra; the cup of unmixed wine is called *μέγα* in all the descriptions of the refusal of Callisthenes to drink Alexander's health. I cannot agree with Tarn (*op. cit.* p. 212) in his belief that the big gold *kylix* which held the unmixed wine was the same as a gold *κύπελλον* used for libations on various

occasions and finally flung into the Indian Ocean. Alexander had many gold cups, and his father had an enormous one that he so cherished that he took it to bed with him and put it under his pillow (Athen. 153 D and 231 B). Alexander says he inherited from his father only debts and some gold cups (Arrian, 7, 6, 10). The big cup may have been one of these.

ARTEMIS ORTHIA: SOME ADDITIONS AND A CORRECTION

I

By the kind permission of Professor Sieveking and of Mr. A. M. Woodward, who has informed me of the existence of these objects and has sent me the photographs here reproduced and the necessary notes, I am able to publish a few small objects in ivory, bone, and bronze which were acquired in 1911 by the Museum der Kleinkunst in Munich. A summary account of them by Professor Sieveking has already appeared in the *Münchener Jahrb. der bildender Kunst*, 1912, p. 73. The channel by which they reached Munich is naturally obscure, but there can be no doubt that they were found at the Orthia sanctuary at Sparta, the excavation of which was finished in 1910, the year before the objects were acquired at Munich. Even before this information reached me, I had learned by a curious accident that there had, in fact, been some small pillering from the Orthia excavation by one of our workmen.

The objects are reproduced slightly less than full size on Plate XI. The references to plates and pages are to the *Artemis Orthia* book.

1. Pl. XI, 1. A bone full-length figure of Orthia, exactly like the one shown on Pl. CXIX, 4, but with the skirt complete.

2. Pl. XI, 2, *a-d*. A four-faced bone seal of the type described on p. 228 and shown on Pls. CXXXIX and the top of CXLI. These seals date to the latter half of the eighth and the seventh centuries. This Munich example, of which all four sides are shown, is remarkable for having what none of the examples hitherto known has—its means of attachment. This is a piece of bone inserted into one of the ends of the seal, and terminating above in a perforated cylinder, which makes it plain that the object was suspended, probably carried as a pendant. The designs on the faces, three birds, and a pattern of incised circles, present no new features.

3. Pl. XI, 3, *a-b*. An ivory couchant ram, pierced from back to front, and on the base of the figure an intaglio of a tall standing bird. This is precisely one of the numerous figures of couchant animals found at the Orthia site, for which see pp. 230-236. Parallels to the bird, in intaglio or relief, are on Pls. CLVI and CLVIII.

4. Pl. XI, 4*a*. A similar figure of a small couchant winged lion, again with a bird cut on the base. The closest parallel to both the lion and the bird is the figure on Pl. CLIV, 3.

5. Pl. XI, 5, 6 and 7, *a* and *b*. Three flat bone circular seals with a hole on one side for attachment. These are of the type described on p. 329 as Type 2 and figured on Pls. CXL-CXLIV. These three examples are true to

the type, with their rosetta patterns on the pierced upper side, and with the seal itself having a design of a displayed bird or a sphinx.

6. Pl. XI, 8 *a, b*. A bone disc-seal of the type described on p. 229, and shown on Pls. CXLIIV-CXLVI as Type 3. They are distinguished by being drilled across a diameter and by having the upper face reduced by a chamfer. This example has on the reduced face (*c* 8, *b*) the head of a griffin, and on the lower face a standing sphinx, both in intaglio.

7. Pl. XI, 9, *a, b*. Small bone disc of lentoid form, each face with a zigzag pattern round the edge and across the face a diameter.

8. Pl. XI, 10. A flat square piece of bone with a pattern of incised circles and lines. It closely resembles the pieces of bone shown on Pl. CLXX, 10-13.

9. A bronze lion-fibula. The bow of the fibula alone is preserved: it consists of a couchant lion, of which the tail ends in a bearded serpent. Exactly such another is described on p. 200 and shown on Pl. LXXXVII, *f*. It dates to the end of the seventh century.

10. In addition to these objects Mr. Woodward was shown five scarabs, bone or paste. None bore designs in any way different from those already published.

II

The correction now to be made relates to the dating of the iron spits, in which were recognised the earliest Spartan currency. It is said on p. 391 of the *Orthia* book that there was no evidence for these being found later than with Laconian I pottery—later, that is, than about the year 635 B.C. A further record has now been found, by which it appears that, though the bulk of these spits were found with Proto-Corinthian and Laconian I pottery, yet pieces turned up with all the styles of Laconian pottery from Laconian I to as late as Laconian VI. This means that these dedications may have been made even as late as the first half of the third century B.C. Laconian VI pottery lasted over a long period: it began about 425 B.C., and must some of it be dated as late as the middle of the third century: it is not necessary to suppose that the iron spits go down to the very end of this period, but we must admit that they were dedicated at least as late as the fourth century, if not even later. This correction does not affect the fact, as already published, that by far the greater number of spits belong to the early period, and from the circumstances of their discovery belong to the latter part of the eighth down to towards the end of the seventh century. Nor is it easy to be sure how far such occasional dedications at an old sanctuary imply actual daily use as currency: their use in the *Orthia* cult may well have been a piece of ritual archaism. Earlier than the appearance of Proto-Corinthian pottery, that is with geometric pottery alone, the spits, as has been already stated in the *Orthia* book, were of rare occurrence.

R. M. D.

THREE LEAD COFFINS FROM PALESTINE

(PL. XII.)

THE writer has been recently given the opportunity to study three lead coffins, ornamented in relief, now in the Palestine Museum, Jerusalem. They are as yet unpublished.¹

No. I.—Inventory, Dept. of Antiquities (Part M), No. 1080, entry dated January 13, 1928. According to a report made to the Department it was discovered in 1923 during the repair of a road from Acre to Beirut, near the village of Ex-Zib.² It was found in one of a group of fourteen tombs opened up accidentally during the work.³ The coffin was found in a much-damaged state and conveyed first to the local museum, Acre, and then to its present place.

Description. What remains of the coffin is in six fragments:—

(a) A short side, measuring 24 by 35 cm. It is decorated with four columns of the Corinthian order with simplified capitals.⁴ The shafts of the columns have parallel *spiral* flutings⁵ for the upper two-thirds of their length (12 cm. fluted, 6 cm. plain).

Between the two columns on the right are three olive leaves joined together. Identical leaves occur also above the columns and in fragment g. Above the leaves stands a youth, nude but for a strip of garment over his left shoulder. His face is turned up leftwards; his left hand holds a curved staff, his right hand is turned up (with the palm outwards) in a gesture of adoration.⁶ His right foot is drawn up.

¹ I would like here to record my obligation to the Director, Department of Antiquities, for permission to publish this material; to the officials of the Department, and especially to Dr. L. A. Mayer for his unflinching courtesy and helpfulness.

² Ex-Zib (عزيب) is a village on the coast of the Mediterranean Sea, not far from Tyre and Sidon. It is generally identified with Ecdippa or Ecdippon (Jos. B.J. I. 13, 4), also called Actippus or Aree (Jos. Ant. V. 1, 22), and the Biblical Achzib (Judges i, 31; Joshua xix, 29) 2728. Cf. P.E.F., Survey W. Palestine, Memoirs, I, pp. 153, 193.

³ All the other tombs were found empty, save for some glass and pottery objects.

⁴ They seem to be of the Eastern type of

the capitals in the Sidamara group. Cf. Lawrence, 'Sarcophagus at Lanuvium,' *Anc. Journ. Arch.*, 1928, p. 421.

⁵ In twisted columns a symmetrical arrangement is more usual. For examples of parallel flutings see Robert, *Sark. Reliefs*, III, 2, Pl. LX; Dalton, *Catal. Mus. Alex.* p. 96, No. 476; Hill, *Catalogue of Lycia (Coins)*, Pl. XXII, 11; Waddington, *Recueil des monnaies grecques d'Asie Min.*, I, 1, p. 163, No. 19; Montfaucon, *L'Antiq. expiq.*, II, Pl. XIV, 7.

⁶ This curved staff is the *pedum*, the attribute common to Pan and the shepherds. Cf. Reinach, S., *Répertoire des reliefs*, III, 329, 339; *Répertoire des vases*, I, 446, 463; II, 363.

Opposite him, between the two columns on the left, stands Pan, bearded and with goat's legs. With his right hand he drags some animal by its fore-legs, with his left he pours from a wine-skin over his left shoulder into a vessel placed at his feet.⁷

Above the centre of the colonnade a hexagonal rosette with markings in the inner circle is placed. Similar rosettes occur above the columns and in fragments *b* and *c*. A rope runs over the columns and passes in an arch over the rosette in the middle. Vases of the kantharos type stand on the extreme right-hand column and on the centre of the arch. From the former a vine of a naturalistic character springs and fills with its leaves, grapes and tendrils the whole upper part of the fragment.

The upper rim of the fragment is preserved; its curved form shows that this fragment was one of the short sides.

This piece is fairly well preserved; the bottom is, however, missing. We can assume another vase over the extreme left-hand column and possibly a bunch of three olive-leaves below Pan.

The relief is low on the whole, except in the case of the columns, where it becomes much higher at the base. The artist apparently wished to express the increase in the diameter of the column in two dimensions.

(*b*) The other short side measures 30 by 34 cm. Its decoration consists of a rope-ornament running round a square field; in the upper part of the latter there is the head of a Gorgon. The face shows a low forehead, wide-open staring eyes, a small tightly contracted mouth. Winding snakes replace the hair.⁸ Round the head there is a circle of twisted rope (both it and the head itself reappear in fragment *c*) and another circle with small ripples.⁹ Below the head a similar circle surrounds the remains of another bunch of olive-leaves.

In the upper and lower left corners the image of Pan as in *a* is visible; such images probably were also present in the two corners on the right. In the field, rosettes and bunches of leaves, as on *a*.

(*c*) A smaller fragment, measuring 25 by 21 cm.; probably from one of the other sides or the lid. It is bordered by a rope pattern and flanked on the left by a twisted column. In the centre there is a Gorgon's head, with single

⁷ This type of Pan is a late Hellenistic variety. The animal cannot be clearly distinguished: it might be a dog or a hare (for both there are parallels; cf. Roscher, *Lexikon der Mythol.* s.v. 'Pan,' col. 1470); but it is most likely a kid Pan is dragging to the sacrifice (cf. Michaelis, *Ancient Marbles in Great Britain*, p. 388, No. 266; Gerhard, *Antike Bildwerke*, Pl. 112, X; Imhoff-Blumer, *Griech. Münzen*, p. 909, No. 429, Pl. X, 2). The posture itself goes back to the representations of a Maenad with the kid she has slain (cf. the Neo-Attic vase in the Louvre; Gardner, *Handbook of Greek Sculpture*, 1905, p. 504).

⁸ The Gorgon belongs to the 'pathetic'

variation of the 'beautiful' type, characteristic for the Hellenistic and late periods (cf. Roscher, *op. cit.*, s.v. 'Gorgo'). The type occurs also on two second century sarcophagi from Sidon, now in Constantinople (Mondol, *Catal. sculpt. Musée imp. ottoman*, Vol. I, p. 77).

⁹ Cf. the knot of snakes sometimes formed beneath the chin of the Gorgon (Waddington, *Holzsarkophagi*, p. 61, No. 2, L & I, m, from Kerbel). The outer marked circle might be a degenerated form of the scaly background (representing the wings) found e.g. on two Sidonian sarcophagi of the second century A.D. (Mondol, *op. cit.*, p. 118).

leaves of an undetermined character above and on its right. In the angle, a rosette.

(d) A small fragment (8 by 11 cm.) showing a crouched and winged sphinx.

(e) and (f) Two small fragments of olive leaves, not photographed.

The original form of the coffin cannot be determined with certainty from the remaining fragments. From the approximate equality of size of the short side of the coffin No. 2 and the pieces (a) and (b) of this coffin, we may conclude that this coffin was also an oblong sarcophagus with a slightly curved lid.

Technique.—The single plates were cast in moulds: the items of decoration which are repeated were produced by stereotyped patterns fixed in the mould. Other items (e.g. the vine) were fashioned and modelled separately. The whole points to mass production. After casting, the plates were soldered together.¹⁰

Decoration.—As in every object of antiquity found in the Hellenistic East, we have also here to discuss the respective strength in quality and quantity of the Greek and the Oriental element. Apart from its general significance for the history of this region, such a survey is also important for dating purposes, as the Greek element is usually found in direct proportion to the antiquity of the object. On the whole we may say that in the present case the figurative element is Hellenistic and the ornamental Eastern (Syro-Phoenician).

Of definitely Greek origin (though perhaps with some local religious significance) are Pan, the youth, the Gorgon, and the Sphinx.

From the Orient are derived the rope-arch over the middle of the colonnade, the rosettes, and the vine.

The *olive* occurs in Greece in connexion with the cult of the dead,¹¹ but, as in all religious matters, we need not assume Greek influence on the East.

There are two reasons for the choice of Pan on coffins: his connexion with the Dionysiac circle and in consequence with the Dionysiac doctrine of happiness in the nether world,¹² and, secondly, his widespread worship in Northern Palestine, centring round the famous cave and sanctuary of the Paneion (Caesarea Panias).¹³ The figure opposite Pan is a satyr or a shepherd, approaching the god (or his statue within a temple) with a gesture of adoration.

The rope arch over the centre of the colonnade is not unlikely a reflection of the 'Syrian entablature' i.e. an architrave and cornice with a curved segmental section in the centre. The origin of this feature is referred to the Greek towns of Asia Minor,¹⁴ but, as its name indicates, it is really characteristic of the 'baroque' Syrian architecture, mostly of the Antonine period. It

¹⁰ Perrot-Chipiez, *Art of Phoenicia*, I, p. 183.

¹¹ Waddington, *Holzwerkophagen*, 6641, No. 21, p. 19, bedding the dead on a couch of olive, bay or vine leaves; p. 20, olive or bay wreaths for sepulchral uses.

¹² Cf. Cagnat, *Manuel d'archéologie romaine*, II, 615; Reinach, *Rep. Reliefs*, II, 180; Maschjaro, 'Il simbolismo nelle

figurazioni sepolcrali romane' (in *Memorie dell'Accad. di Napoli*, I (1911), p. 11-143).

¹³ Polyb. XVI, 15-XXVIII, 1; *Jos. Ant.* XV, 10, 3; *B.J.* I, 21, 3; III, 10, 7; Steph. Byz. s.v. Πανίας and Πανίς; *Sohn. XXV*, 1.

¹⁴ Cf. the Gymnasium of Priene, Kohl's restoration in Kohl, *Kunst Formen*, p. 29.

occurs, outside Syria,¹² also in the synagogues of North Galilee,¹³ on coins of Asia Minor,¹⁴ and on the Sidon sarcophagus found by Renan in 1860, etc.¹⁵

This view of the rope arch as a reflection of the 'Syrian entablature' is confirmed by the fact that the vine, rising on both sides of the arch from the vases, forms a triangle (= the cornice).

The *rosettes* are in general use on ancient sepulchral monuments, but especially on Syrian tombs¹⁶—possibly because of their religious significance¹⁷—as well as in general architecture.¹⁸

The *vine* ornament is a clear mark of Eastern influences, especially if used—as in the present case—as a decoration of space in an ornamental 'arabesque' fashion, and not as a background for figures.¹⁹

The use of columns in sarcophagus decoration goes back to the primitive conception of the tomb as a house, with which the Italian house urns have, *inter alia*, made us familiar.²⁰ It occurs also in Greece²¹; for the vicinity of Sidon see the famous 'Pleureuses' coffin, a Greek work of the fourth century B.C.²² Later examples are the Italian sepulchral altars²³ and the 'Sidamara' series of sarcophagi.²⁴

The use of the spiral on a sepulchral monument is another point of interest, originally perhaps of a religious significance and connected with the common Indo-Germanic belief of the serpent as embodying the soul of the heroic dead.²⁵ In Greek art the serpent (the soul of the dead) is often found winding round a tree (symbolising the grave).²⁶ In this connexion one might adduce the staff

¹² Coins of Hadrian and Pius showing Aelia-Capitolina temple (issued after A.D. 136). For examples of architectural remains dating from A.D. 150 to 211 see Kohl-Watzinger, *Synagogen in Galiläa*, note to p. 148.

¹³ Kohl-Watzinger, *op. cit.*, p. 37 (Tell Hum); p. 51 (i) (Kerazo); p. 84 (Merco); p. 118 (ed-Dikka). Cf. their reconstruction of Tell Hum.

¹⁴ Coin of Isaura of Caracalla (Hill, *Catal. of Lycania, Isauria, etc.*, Pl. II, 10); two coins of Elagabal; of Byblos (Perrot-Chipiez, *op. cit.*, I, 129) and of Tripolis (Phoenicia), which Chapiot (*La colonne torse*, p. 115 = Donaldson, *Architectura aenimatica*, p. 102, No. 29) wrongly thinks to represent some fantastic composition.

¹⁵ Renan, *Mission en Phénicie*, p. 427, Pl. 60 = Krauss, *op. cit.*, I, p. 236, Fig. 191 (now in Constantinople).

¹⁶ Domaszewski and Brünnow, *Provinzia Arabia*, III, p. 99 (Tomb of Hamrath, es-Suweida); Tombs of Kings, Jerusalem; Tomb of Absalom, Jerusalem; Necropolis of Khaldi (Heldna), (de Saulley, *Voyage autour de la mer morte*, Pl. III); and Jewish ossuaries.

¹⁷ Dussaud, *Notes de la mythologie syrienne*, pp. 69, 90, Figs. 19, 21.

¹⁸ Butler, *American Expedition Central*

Syria, Architecture, p. 33; Domaszewski and Brünnow, *op. cit.*, I, p. 156, Fig. 174.

¹⁹ Cf. Strzygowski, *Machutta*.

²⁰ Cagnat, *op. cit.*, I, pp. 275-76, Figs. 142-43.

²¹ Watzinger, *op. cit.*, p. 45 sq., and p. 90, No. 27 (p. 4, *ibid.*) shows a small row of columns similar to these in the Tombs of Kings, Jerusalem, and the small columns flanking the windows in Syrian architecture (Kohl-Watzinger, *op. cit.*, p. 8, Tell Hum).

²² Cf. Hamdi Bey and Th. Reinach, *Nécropole royale à Sidon; Continuan, L'art d'Asie occidentale*.

²³ Altmann, *Grabaltäre*, p. 136 sqq.

²⁴ Th. Reinach, *Mém. Piot*, IX; Strzygowski, *Orient oder Rom*, p. 46 sq.; *J.H.S.* XXVII (1907), p. 111 sq. Cf. Rodenwaldt, *Säulensarkophage in Röm. Mitt.*, 1923.

²⁵ Schröder, *Reallexikon der Indogerm. Altertumskunde*, p. 31; Gruppe, *Gr. Mythologie*, pp. 897-98. For antecedents in Egypt cf. Amelinckx, *Rev. de l'hist. des religions*, XXVI, 2 (1905), p. 31; in Babylonia, Jastrow, *Religion Babyloniens*, II, p. 776.

²⁶ Schröder, *Studien zu den Grabdenkmälern der röm. Kaiserzeit*, Bonn. Jahrb. CVIII-CIX (1902), pp. 46-79; Reinach, *Reliefs*, I, 387, II, 290, 305, 320, 415; Clarac, *Musée*, Pl. 223, No. 75; Pfuhl in *Jahrb. XX* (1905), p. 55, No. 30, Fig. 11.

of Aesculapius³⁰ and the belief in death as a healing.³¹ The spiral probably represents such a serpent wound round a tree.

The *division of the shaft* into a fluted and a plain portion is regarded by Altmann³² as characteristic of Hellenistic architecture and steles. The proportions given by him (two-thirds fluted, one-third plain) are exactly observed in the present case.³³

As to the *provenance* of the spirally fluted column, there are three possibilities: Greece, Rome and the Orient. The majority view is, as a corollary of the general theory of the origin of Roman art in the East, inclined to the last-named possibility. The spiral decoration is said to have originated in Persia, to have passed to Mesopotamia, the Hellenistic East and thence to Rome.³⁴

Certain doubts arise concerning this view on a closer study of the material. If we adopt as a guiding principle that we ought to judge only from the material actually before us, that isolated instances of a decoration do not make a style, and that only a series of examples, linked together locally and chronologically, will entitle us to speak of a line of development, we must take into account the following facts.

There are isolated cases of Assyrian, Minoan and Greek (both Archaic and Classical) columns of this type. In the main this development (if any) was cut off by the Greek classical period.³⁵ The nice aesthetic sense of the Greeks repudiated any weakening, real or apparent, of the supports of the entablature. We may therefore dismiss all the cases quoted above.

Greece eliminated, the question remains between the East and Italy. According to Strzygowski there were three centres of Oriental art under the Empire: Alexandria, Ephesus and Antioch. We must look, therefore, for traces of the twisted column in Egypt, Asia Minor and Syria.

Egypt.—In the Hellenistic age the spiral column was very little known. In the collection of Schreiber, *Hellenistische Reliefs*, which is mainly concerned

³⁰ Its Babylonian prototype is the vase of Gudea; cf. Sarac, *Découvertes en Chaldée*, Pl. XLIV.

³¹ Plato, *Phaedo* (the sacrifice of Socrates).

³² *Grabaltäre*, p. 136; he quotes Priene, p. 108; *Magnesia*, p. 135.

³³ For similar cases see a Minoan gem (Evans, *J.H.S.* XXI (1901), p. 141, Fig. 24) a candelabrum from Pompeii, half fluted and half plain (Daremberg-Saglio, Fig. 1088); a mausoleum from Algiers, also half-fluted, half-plain columns (Gsell, *Mon. antiq. de l'Algérie*, II, p. 94 sq.); the Newried silver plate (one-third fluted, two-thirds plain); Reinach, *Reliefs*, II, 83. A most interesting coincidence is the Byzantine church at Sufa 'Amr, not far from Ez-Zib, where the same type and proportion are observed (*P.E.F., Survey W. Palestine, Memoirs*, I, p. 342). Cf. further a coin of Gallionus from Emnesia (Heud. *Catal. of Phrygia*,

Pl. XXVII, 12) with the statue of Artemis of Ephesus, which indicates a connexion of this basal portion distinguished from the rest of the column with the sculptured columns of Ephesus.

³⁴ Dalton, O.M., *Handbook of Byz. Archaeology*; Kauffmann, *Chr. Archäologie*, pp. 482, 498; Cabrol, *Dictionn. archéol. chrétienne*, s.v. 'Colonne.'

³⁵ Assyrian: Petrot-Chilpiez, *Assyrie*, I, p. 278; II, p. 353. Minoan: Furtwängler, *Antike Gemmen*, III, Pl. III, 27; Evans, *Annual Brit. School Athens*, IX (1902-3), pp. 7-8, fig. 3; Bossert, *Alt-Kreta*, p. 28. Archaic Greece: Wiegand, *Die archaische Porosarchitektur der Akropolis zu Athen*, p. 172. Classical Greece: apart from small objects (Clasot, *op. cit.*) the only case is the 'Serpents Column' at Constantinople (from Delphi).

with work under Alexandrine influence, there is only one example, and doubtful at that.³⁶

Asia Minor.—The coins of the Greek towns show numerous examples of twisted columns; but, as V. Chapot points out, these coins are late, and anyhow the coins of Asia Minor are so numerous that all proportion to other provinces is lost.³⁷ Of architectural remains few are early: e.g. the Roman theatre at Termessus³⁸; a building at Ephesus (possibly, but not probably, of A.D. 106-7)³⁹ and one at Aphrodisias.⁴⁰

In the central plateau of Asia Minor few monuments are still standing and fewer have been excavated. One must refer, therefore, to the collections of Sir William Ramsay, Miss Ramsay, the recent publications in the *J.R.S.* and in the *Monumenta Asiae Minoris Antiquae*, which are concerned mostly with grave-stones, etc. We find there several instances of spiral columns, none, however, earlier than the third or fourth century A.D.⁴¹

Syria.—The architecture of the capital of this province has almost entirely disappeared; but a good deal of the Syrian type of architecture has been preserved in the smaller places of the province and has been carefully collected and described by Butler and de Vogüé. As it is obvious that the style in favour in the capital is reflected in the buildings of the villages (though probably a little later), it follows that, if the spiral column had really originated in, or spread from, Antioch, it should be reflected in the architecture of this province earlier than it could be found in Italy. This is, however, not the case. In the two publications of the American Expedition in Syria, which give descriptions and drawings of hundreds of buildings, only two cases of spiral columns anterior to the third century A.D.⁴² are to be found and only one that could possibly be assigned to the first centuries B.C. or A.D.⁴³ Even later cases are rare.⁴⁴ So much for the alleged Eastern origin.

It may be said at once that examples from the West are earlier and more numerous. We find spiral columns (perhaps as a reflection of the ropes used for lowering the coffin) in the corners of Etruscan sarcophagi and ossuaries.⁴⁵ Linked up with them we find: twisted cannellures on Augustan capitals of the Corinthian order⁴⁶; Arretine pottery with twisted columns in relief⁴⁷; the

³⁶ Pl. LIV (out of 112 cases).

³⁷ Chapot, *La colonne torsie*, pp. 114 sq., 123. Cf. Munro, *R.G.*, V, p. 302 note.

³⁸ Niemann-Petersen, *Städte Pisidiens und Pamphyliens; Pisidia*, pp. 95, 97.

³⁹ Chapot, *op. cit.*, p. 125.

⁴⁰ Collignon, *Rev. de l'art ancienne et moderne*, XIX (1900), p. 35.

⁴¹ E.g. the example in *Mon. As. Min. Antiq.*, p. 188, is later than A.D. 212 because of the name Aurelius found on it, and its Christian character. Cf. *J.R.S.* XIV (1924), Pls. V, VI (from Coliseum), and *ibid.* XV (1925), p. 169.

⁴² Apamea (*Amer. Exped. Syria—Architecture*, p. 53), second century A.D.; Inkhil (*ibid.*, p. 314), end second century A.D.

⁴³ Nabatean temple in (S&T *ibid.*, p. 429, D).

⁴⁴ Umm-Wilât (*Princ. Exped.* II, B, p. 68, Fig. 72); Baufân (*ibid.*, p. 286); and fragments in the 'episcopal palace,' Bezm. *Princeton Exped.*, II, A, p. 286.

⁴⁵ On a Chios coffin: Martha, *L'art étrusque*, p. 343, figs. 236-7; Annali, 1864, Pl. A, B.; Darm, *Baukunst der Römer*, p. 151, Fig. 179, no. 3.

⁴⁶ In Pompeii and Baalbek (Wiegand, *Jahrb.* XXIX (1914), p. 43 sq., Figs. 4, 7, etc).

⁴⁷ Loeb, *Collection of Arretine Pottery*, Fig. 536, Pl. XIX. This pottery is dated roughly as previous to A.D. 60. Cf. Dragon-dorf, *Bonner Jahrb.* XCVI (1895), Pl. V, 44; Hartwig, *Philologus*, LVIII (N. Folge, XII, 1899), Pl. IV, p. 482; Pasqui, *Not. scavi* (1890), p. 457.

Boscureale cup⁴⁴; Claudian,⁴⁵ post-Claudian⁴⁶ and Flavian tomb altars.⁴⁷ (In 75 cases of these altars with columnar decoration, as given by Altmann, 38 have spiral columns; many of these cannot be precisely dated, but must be pre-Antonine, which is all that matters here.) We find this type of decoration in the Western provinces too: on the Rhine in the first⁴⁸ and in Britain in the second century A.D.⁴⁹ This later date is especially important, as it corresponds roughly with the *earliest* dating of the first sarcophagus of the Sidamara type.⁵⁰ Concerning another spiral column of this period, the Trajan column, Prof. P. Gardner says that the manner in which the frieze is wound like a ribbon round the column is apparently—as far as our scanty knowledge of Hellenistic architecture of the third and second centuries B.C. allows us to judge—a novel feature in the period.⁵¹

The above does not, of course, entirely exclude Hellenistic influences as emanating from South Italy. In Pompeii plants are represented winding round columns in fourth-style paintings in a manner recalling Egyptian prototypes, and which certainly suggest a spiral column.⁵² Nor does it reflect on the general theory of the Eastern origin of the 'Sidamara' group; although it has been justly pointed out that of twelve monuments of this type four have been found in Italy, three in Greece, two in Bithynia and only four in Asia Minor itself, the supposed home of the style.⁵³

We must not even assume Italian influences on the East. The spiral decoration is closely allied with the rope decoration, which is of almost universal occurrence,⁵⁴ and which admits without any difficulty the idea of spontaneous creation.

It is, however, quite possible to maintain that a certain decorative element has been taken over by the East from the West, contrary to the supposed general trend of art at that time. This is, after all, not an isolated instance: there are several other examples of such influence in Baalbek and elsewhere. Corinthian capitals, with the three-leaf cup of the West, but with the deep-cut leaves of the East, are found at Baalbek and Madaba⁵⁵; opus reticulatum is used in a tomb at Homs⁵⁶; the shell-niches at Baalbek

⁴⁴ *Mon. Piot*, V (1899), Pl. VIII, 2.

⁴⁵ Altmann, *Grobaltäre*, p. 45, fig. 32; p. 44, fig. 32. Cf. the funeral monument of Volusius Diodoros assigned by Chapot, *op. cit.*, p. 93, to A.D. 55.

⁴⁶ Altmann, *op. cit.*, No. 183, p. 153, fig. 124.

⁴⁷ *Ibid.*, No. 293; and a monument of a soldier of the Leg. XXI Claudia (and therefore erected between A.D. 42 and the time of Vespaasian), who was certainly not an Oriental: Liebl, *Wiener Studien*, XXIV, p. 311.

⁴⁸ Weyand in *Westd. Zeitschrift*, XVII (1898), Pl. 12, p. 367, and in *Bonner Jahrb. CVIII-CIX* (1901-2), pp. 185-238.

⁴⁹ A tablet dedicated to Antoninus Pius (*J.R.S.* II (1912), p. 129; Reinach, *Reliefs*, II, 449, 3; *C.I.L.* VII, 1088).

⁵⁰ Dated A.D. 169, viz. the Melfi sarcophagus: *Jahrb.* XXVIII, pp. 277 sq.; Delbrück, *Ant. Denkmäler*, III, Pls. 22-24.

⁵¹ *J.R.S.* 1917, p. 20.

⁵² Springer, *Handb.* (6th ed.); I, pp. 135, 240; Chapot, *op. cit.*, p. 76. Cf. the connexion pointed out by Strzygowski between the arcades of the Sidamara sarcophagi and the Pompeian theatre scene as shown on paintings of the fourth style (*J.R.S.*, XXVII, p. 119).

⁵³ Reinach, *Th.*, *Mon. Piot*, IX, p. 189.

⁵⁴ Chapot in his *Groupe de comparaisons* gives examples from Central Africa, Northern Europe and Mexico; places which hardly admit mutual influences (*op. cit.*, pp. 20-33).

⁵⁵ Wiegand, *Jahrb.* 1914, pp. 61, 62.

⁵⁶ Butler, *Architecture*, p. 49.

show the wide rim of the shell now above and now below, the former being an Eastern, the latter a Western characteristic.⁸¹

Such isolated examples of Western influence are easily explained. There was a big influx of Syrian architects into Rome in the second century A.D. Both those successful and unsuccessful must have returned home having learned something new at a place which, if not itself creative in art, was at least the clearing-house of all the styles of the Empire.⁸²

In concluding this digression the arguments produced by M. Courbaud in support of the Greek origin of the spiral column might be analysed.⁸³

This learned scholar admits the possibility of a spontaneous creation of the spiral column, although the causes he puts forward (observation of plants winding round a column⁸⁴ or of painted bands of linen wound as a decoration round columns) are somewhat difficult to accept; however, the latter might be correct as far as regards the spiral frieze.

The main arguments in favour of a Greek origin of the spiral column are: (a) that Apollodorus, Trajan's architect-in-chief, was a Greek; (b) the Delphi serpent column; (c) that the uses of the Trajanic column as marking a tomb and at the same time supporting a statue is Greek in its origin.⁸⁵

In reply one could point out (*ad a*): Apollodorus was not a Greek, but a Syrian from Damascus.⁸⁶ How little he was likely to have learned about the spiral column at home has been shown already; (*ad b*): the Delphi column is an isolated case; (*ad c*): even if we agree that the idea of a column in this character came from Greece, nothing is implied as to its decorative details, which might be distinctly Roman in character.

Connexions and associations.—The use of lead for coffins is supposed to have originated in the Hellenistic East and to have spread from there to Italy,⁸⁷ Gaul,⁸⁸ and Northern Africa.⁸⁹

In the present case the nearest parallel is a lead sarcophagus bought by de Sauley in the Beirut bazaar as coming from Ruad (Aradus).⁹⁰ The decoration (Fig. 1) shows such similarity that one is tempted to assume the same factory. Especially close are the parallels with fragment c—in the rope-pattern,

⁸¹ Wiegand, *Jahrb.* 1914, p. 63 sq.

⁸² For the later development of the spiral column cf. Cahrol, *op. cit.*, *Fasc.* XXXI, s.v. 'Colonna,' p. 2295, where copious references are given for works of the third to seventh century A.D.

⁸³ Courbaud, *Les bas-relief romain*, p. 375 sq.

⁸⁴ Cf. Curtius, *Nachr. der Univ. & Königl. Gesellschaft, Göttingen* (1861), pp. 361-90.

⁸⁵ E.g. support of statues: Collignon, *Sculpture grecque*, I, pp. 349, 350, and Panathenaic amphorae. Columns to mark tombs: *Iliad* XI, 371, 372; *Paus.* IX, 307.

⁸⁶ Dion, 69, 4. Chapot, p. 146, commits the same mistake.

⁸⁷ Breccello (N. Italy), *Bollet. corrisp. archeol.*, 1863, pp. 57-58 = *Arch. Zeitung*, J.B.S.—VOL. I.

XXII, 149, 14; Modena, *Arch. Zeitung*, XXV, 89 (discov. 1849); and Kraus, *Christl. Kunst*, I, p. 236 (discov. 1866). Catania, *Not. degli scavi* (1915), pp. 215-25; (1918), pp. 53-71, Figs. 12, 13; *Bull. Inst.* 1833, pp. 172-76 = *Jahrb.* XXXVI, p. 192. A fragment in the Louvre with a Gorgon's head is mentioned in *Jahrb.* XIX, p. 166, No. 69. Cf. Cochet, *Mémoire sur les cercueils de plomb dans l'antiquité et au moyen âge*, 1869, and Hofmann, K. B., *Das Blei bei den Völkern des Altertums*, 1885.

⁸⁸ Arles; Rossi, *Bull.* 1886, p. 70; 1873, p. 77.

⁸⁹ See below, note 81.

⁹⁰ *Voyage en Syrie et autour de la Mer Morte*, Pls. XXI, XXII (Fig. p. 24).

the spiral column on the side, the single leaves; the difference is mainly in the Sphinx, which replaces the Gorgon in the centre; but the Sphinx itself is very similar to that in fragment *d*. The leaves joined in threes (cf. fragments *a* and *b*) are also there in a row with the fruits in between; and this arrangement connects again the Ruad fragment with a sarcophagus discovered by de Sauley in the Tombs of the Kings, Jerusalem (now in the Louvre).⁷¹ There also we find a rope-pattern, olive leaves and fruit, besides grapes and many other fruits.

The present coffin has also many other connexions with Phoenician lead coffins: two sarcophagi from Homs (now in Constantinople) show a twisted column of the Corinthian order⁷²; a coffin of the same style from Baabda (in the Lebanon), also in Constantinople at present, has rosettes and a temple with two spiral columns⁷³; four lead sarcophagi are mentioned by Renan as found

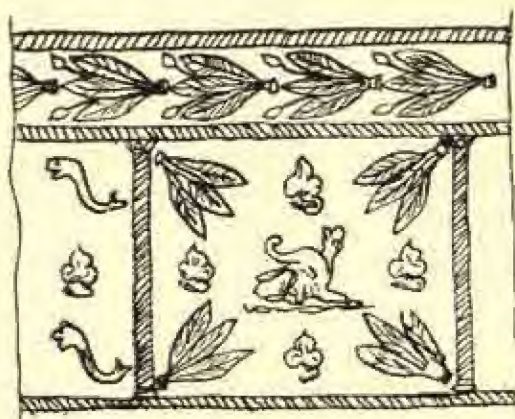


FIG. 1.—FROM A LEAD SARCOPHAGUS SAID TO COME FROM RUAD.

in the vicinity of Sidon; one among them, found by himself and given in his work, shows a vine pattern, growing out of a vase similar in detail to that before us, but more stiff and formally arranged.⁷⁴ The same sarcophagus has also traces of the 'Syrian entablature' referred to above. Finally, there is a sarcophagus from Byblus⁷⁵ with olive-decoration, columns two-thirds fluted and one-third plain and partly twisted.

The above shows in any case that the fragments of the present coffin belong to the Phoenician group and that the coffin itself was probably manufactured at Sidon or at Tyre, for some inhabitant or citizen of these places; it was certainly too costly for a villager from Eedippa. (The coffin could be also

⁷¹ Dusaul, *Mon. palest.*, p. 42, No. 26; de Sauley, *op. cit.* Pls. XXXI and XXXII.

⁷² S. Reinach, *Catal. du musée impérial d'Antiq.* (1882), p. 69, No. 623.

⁷³ A. Jouan, *Musée imp. ottoman: Muséum funéraires, Catal. sommaire*, ed. 2e (1898), p. 22, No. 6.

⁷⁴ Renan, *Mission en Phénicie*, p. 427, Pl. LX. This sarcophagus shows a monogram (Christian) and is assigned by Renan tentatively to the third century A.D. Kraus thinks, because of the monogram, that the fourth century A.D. is a safer date.

⁷⁵ Perrot-Chippiez, *Phœnicie*, I, p. 183.

connected with Acre, but as it is the southernmost of the Phoenician coffins found till now, as it seems, the northern connexion is safer.)

The scanty material given above does not enlighten us—even approximately—on the dating. More material must be brought in, and this is furnished by the Sidamara group on the one hand, and the synagogues of Northern Galilee on the other.

The Sidamara group, dated from the second to the fifth century A.D., agrees with the present case in the use of twisted columns, the placing of figures between them, the arches above the columns, and the preference for the Corinthian capital.

The synagogues have, apart from the use of the spiral column, similarities in the ornament, especially the vine decoration. We have therefore a closely related group of sarcophagi and a more widely related group of other monuments.

Religious association.—Was the coffin Christian, pagan or Jewish?

This question can be answered definitely from the character of its decoration. The use of the vine as a symbol is mostly regarded as a sign of Christian⁷⁶ or Jewish tombs; nor does the use of pagan deities or images exclude such an affinity, so long as these images were of a type inoffensive to the faithful and without any obviously pagan character.⁷⁷ The use of Pan, a Satyr, and the Grogon excludes, however, these possibilities. The coffin is pagan.

Approximate date. The internal evidence as to the date is rather inconclusive; the comparative artistic excellence of the whole (as compared with the wooden character of the usual Syrian statuary) speaks for good prototypes and an early date. On the other hand, the modelling is flat, and there is no artistic principle of arrangement save the primitive one of symmetry. Also we may see in it the beginning of division between the figurative decoration of the Greeks and the Oriental 'arabesque'; the fact that the decorative elements are of a strongly mixed character points to a later date.

Of the related monuments, there is a certain connexion with the 'Tombs of the Kings' (thought to be in reality the tomb of Queen Helena of Adiabene—of the first century A.D.) through the Ruad sarcophagus and the sarcophagus found in these tombs. The latter might, however, be a later introduction into the tomb, up to A.D. 70. The 'Syrian entablature' dates from the second, the Sidon sarcophagi from the third or fourth, the Galilean synagogues from the early third (though this is disputed), the Sidamara group from the second to the fifth century.

If we consider, however: (a) that the present sarcophagus is inferior in workmanship to that of the first century (from the 'Tombs of the Kings'); (b) that it is pagan, and therefore likely to be earlier than the Christian sarcophagi of the third century; (c) that in the matter of the twisted column it was found nearer the coast, therefore it came probably earlier under the influence

⁷⁶ Based on John XV, 5.

⁷⁷ Cf. Grousset, *Étude sur les sarcophages* (École française à Rome), 42; Wilpert, *Pittura di catacombi*. For Jewish use of pagan symbols see Kohl-Watzinger, p. 199.

and the chambers painted in the Vigna Rondanini by the Jewish painter Eudoxius, The Tunia cup mentioned on p. 310 seems to be an exception.

of the West (whence, we assume, the spiral column arrived) than the synagogues further inland; and (d) that it *reflects* the 'Syrian entablature' (first noted in A.D. 136), and therefore must have been made some time after the introduction, we may conclude by regarding it as a work of the *second half of the second century A.D.*

No. 2.—Inventory (Part M) No. 1079, entry dated 13.1.1928; provenance given: Ramallah (N. of Jerusalem).⁷⁸

Preserved are: one long side, with bottom still attached in fragments and one short side (not photographed); the long side measures 180 by 30 cm.

The decoration consists of: a rope ornament running round the whole and crosswise over the field; between the ropes loops of rope are arranged symmetrically (there are fifteen of them, one in the centre below is missing). Apart from these, the surface shows two kinds of rectangular, framed plaques. The larger variety, repeated three times on the long and twice on the short side, is divided into two compartments: the upper bigger one shows a Victory, winged, turned left. She is dressed in a Doric chiton, opened so as to show her left leg advancing, and girdled with a scarf, the ends of which are floating in a manner suggestive of a Palmyrean (pagan) tomb painting, dated by inscription to A.D. 259.⁷⁹ Her right arm is lifted up and she carries something, probably a wreath. Her left hand is stretched out backwards. In the lower part of this plaque some winged animal, a griffin or a horse, is lying.

Of the smaller plaques, placed horizontally, there are eight. We see there two winged Erotes of the familiar type, the one on the left carrying a bowl with fruits, the other (on the right) a basket and a wine-skin over his left shoulder.

This type of decoration with square plaques recalls pressed lead-work,⁸⁰ and especially a Christian cup from Tunis dated ca. 400 A.D., with a queer mixture of pagan and Christian motives.⁸¹ The present coffin is, however, not pressed but cast.

In its decoration this coffin with its sober and spare ornament is much more removed from the ornate Syro-Phoenician type than the preceding one; it is connected with it, apart from material and form, mainly by the crosswise arrangement of ropes, which can be found, albeit in a degenerated state, in the Sidon monogrammatic sarcophagus referred to above.

As to the details of the decoration, the *loop* is found very early as a symbol of immortality, and it survives till this day in the East as a symbol of resurrection. A note, for which I am indebted to the Department of Antiquities, says that it is customary among members of the Orthodox Greek Church to give at Easter presents in the form of a loop-shaped cake, with a coloured egg inside it. The symbol might have also an added significance of the binding of evil spirits.⁸²

⁷⁸ The photograph shows the right side and the middle of the long side; the part to the left of the second crossing of the ropes corresponds exactly to the part on the right of the crossing on the right, which is shown.

⁷⁹ Strzykowski, *Orient oder Rom.*, p. 11 sq.

⁸⁰ Overbeck, *Pompeii*, p. 620.

⁸¹ Kraus, *Christl. Kunst*, I., p. 236.

⁸² Scheffelowitz, *Religionsgesch. Versuche und Arbeiten*, XII, 2. Cf. the Hercules knot, and the synagogue of ed-Dikka (Kohl-Watzinger).

The nearest parallel to the *Nike* is to be found on two gems of Gnostic type, given by Cabrol.⁸³ We find there the same posture (save for a palm in the right hand, which is here absent); also the symbolic meaning seems to be the same. The type seems to have developed out of a pagan Nike crowning a hero or emperor.⁸⁴ The Palmyra tomb also shows a similar victory, in front view.

The *Erotes* are of a type common in tomb painting,⁸⁵ especially in symbolic vintage scenes (although this symbolic meaning is disputed).⁸⁶

The *basket* is common on the 'door-steles' of Phrygia of the third and fourth centuries A.D.⁸⁷

This sarcophagus is Christian, because of the symbols of immortality, the *Erotes*, the inoffensive character of the pagan figures, and the connexion with the Sidon monogrammatic sarcophagus.⁸⁸

As for the approximate date, we must consider that (a) the use of pagan symbols points to an early date, at least in the Orient; (b) the comparatively good types used point in the same direction; (c) the Gnostic influence, which was here, as elsewhere, the mediator between paganism and Christianity, flourished in the third century; (d) the dating of the Palmyra tomb (A.D. 259). All this seems to point to the *third century A.D.* as the date of this work.

No. 3.—Inventory M, No. 1082 (entered January 9, 1927, as 'lead coffin with lid, ornamented with vine pattern and knots'). Provenance given: Ascalon. Measurements: 230 by 53 by 27 cm.

Inside the coffin the following objects were discovered (Dept. of Antiquities, Inventory (Part I): nos. 922-25, dated Jan. 9, 1927.)

- (1) Gold mouthpiece of corpse pierced at ends; found with fragments of charred bone (110 by 40 mm.);
- (2) Gold headband of corpse (220 by 45 mm.);
- (3) Heavy gold foil in form of knots as ornamented on outside (100 by 68 mm.);
- (4) Gold necklace (155 by 145 mm.), with thin ends fastened together and buttons at side;
- (5) Coins of Valentinian.

The coffin is complete and well preserved; very solid and heavy; the ornament on the cover is repeated on the sides (not photographed). It consists of vine, with grapes and leaves, crossing the cover in a manner similar to the crossing-ropes of No. 2. The vine is of a rather stylised form, the leaves not

⁸³ S.v. 'Angos,' p. 2118, Figs. 642-3.

⁸⁴ Reinach, *Reliefs*, II, 369, III, 86; Clarac, *Musée*, Pl. 639.

⁸⁵ Wilpert, *op. cit.*, p. 35, Fig. 2, Tav. 53, 148 (of the third and fourth century A.D.).

⁸⁶ Kraus, *Christl. Kunst*, I, 122.

⁸⁷ Ramsay, *Phrygia*, p. 701; *J.H.S.*, 1928,

p. 31, Pl. II.

⁸⁸ The coffin cannot be Jewish; there could be no Jewish settlement or even wealthy individuals so near Jerusalem in the third century, considering the Roman policy in this respect.

modelled, but left almost triangular, with the outline only in relief and the interior plain; the grapes are but a cluster of dots in relief.

In the fields right and left smaller branches (winding in the same fashion) are arranged parallel to the short sides of the cover; they are three in number. On both sides of them, as well as in the centre-piece, are two loops, corresponding to those on No. 2 and arranged symmetrically.

Branches of vine, like those in the centre fields, run out from the corners of the cover (these short pieces of vine pattern were clearly cast by fitting in ready-made moulds). Short pieces of rope are placed vertically in the spaces between the vine and the rim of the cover. This stylised decoration has a very agreeable effect.

The coffin is clearly Christian, in view of the vine-decoration, the symbolic loop and the late date of the coins found in it. Unfortunately these coins cannot be now identified more closely, and we must be satisfied with the *terminus ante quem*, the accession of Valentinian in A.D. 364.

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SOME TECHNICAL METHODS OF ARCHAIC SCULPTURE

THE peculiar freshness and clarity of surface and detail which distinguishes so much of archaic Greek sculpture in marble seems to be due to the perfection of technical methods no less than to the consummate skill and genius of the artists. At present little investigation has been made as to what those technical methods were. Carl Bliemel¹ has laid a sure foundation for future study, but much can be done to amplify his conclusions. The following notes constitute an attempt to ascertain some of the technical facts from a study of the original works of art.

The simple drill.—Some light has recently² been shed on the use of the drill in the fifth and fourth centuries B.C. and the gradual transition from the simple to the running drill. But it is still a matter of some uncertainty when the drill came into use in the archaic period, first for minor and then for major detail; for it remained for centuries an adjunct only and did not become a major tool until Roman times.

In the early archaic statues in soft stone ('poros,' limestone and sandstone) that I have examined I have failed to detect any trace of the drill. There is none in the Attic 'poros' series, none in the Cretan sculptures from Prinias, none in the two similar and contemporary Cretan sculptures in the Louvre. The drill apparently only came into use as hard stones and marble became popular.

But, even so, it was a long time before the drill was used at all by carvers of marble. In the series of Attic *korai* it was, in any case, rarely used for sculptural purposes except for the undercutting of folds of hanging drapery. It was, however, used for structural purposes before it was used for artistic. As proof of these assertions we can take the following facts:

Korai, which in type and structure must be placed at the beginning of the series, show no trace of the drill at all for artistic purposes. Nor, indeed, is there anything in their adornment or attitude which calls for it. No. 593 in the Acropolis Museum is innocent of drill-holes. No. 679, almost perfectly

¹ *Griechische Bildhauerei* (Berlin 1927).

² Nevertheless those who have investigated the question are by no means in agreement. Thus Prof. Rhys Carpenter (*The Sculpture of the Nile Temple Parapet*, 1929, p. 78) attributes the 'transition from the stationary to the running drill' to the 'experimentation of the Masters of the Parapet.' Prof. B. Ashmole (*J.H.S.*, 1930,

p. 102) states categorically that 'the running drill was introduced in Athens between the time of the Parthenon Frieze and that of the balustrade of Athena Nike.' Miss Richter (*The Sculpture and Sculptors of the Greeks*, 2nd ed. 1930, p. 145) believes it was introduced in 'the first half of the fifth century.' No doubt closer research will give more precision—for these three datings cover some sixty years.

preserved, scrupulously avoids it upon exposed surfaces and shows its use only in the cutting of a dowel-hole on the left forearm. So too the stele of Aristion and that of the 'Hoplite Runner'³ are achieved without recourse to the drill at any point.

All four of these works are generally attributed to the middle of the sixth century and hardly later than 540 B.C. The hair-fashion of the 'Hoplite Runner' and the treatment of his eyebrows indeed associate him with statues of a considerably earlier period—the Sunium Apollo, the Berlin Kore and even the Kerameikos head, though I should hesitate to give him a date before 555 B.C.

The Naxian marble group from Athens (A.M., Nos. 592, 619, 677) and the Samian Hera of Cheramyes not only show no trace of drill but seem to have been finished in detail by the aid of one simple tool (see below, p. 322) only. Their date is problematical, but few would venture to date any of them after 540.

Among the other Attic *korai* in the Acropolis Museum the following show no trace of the drill: Nos. 594, 613, 670, 671, 672, 674, 675, 676, 678, 683, 685, 687. Of these, Nos. 594, 613, 670, 675 are described by Dickins as in the 'full Chiot' style and are of island marble. If we prefer to reject Dickins' classification we must at least admit that they all alike reflect a style wholly new to Attica and are in a material newly become fashionable in Attic studies. No. 678 is placed by Dickins at the end of the early Attic period and at the beginning of the Ionising period: even without his classification it is evident that this *kore* is not one of the later series. The remainder are hard to date, but in no case fall later than 500. Probably they antedate the Revolution of 510.

The *korai* and other statues which exhibit the use of the drill are Nos. 615, 680, 681, 682, 684 and 694. In Nos. 615, 680 and 682 the drill used is a very small one,⁴ and it is used with great discrimination and care for the undercutting of drapery only. On the other hand, Nos. 681 and 684 use it extensively and often. In No. 681 the drill used was some 8 mm. in diameter. The first of these two is the Antenor *kore*, the second a large *kore* which is almost universally attributed to the close of the sixth century. No. 694, a torso of a Nike, is dated by Dickins at 480. But Nos. 615, 680 and 682 are in Dickins' 'Chiot' manner and are certainly of earlier date than the others. The 'Theseus and Antiope' from Eretria and the Athena torso from the same temple all alike exhibit the full use of the drill in the manner of the Antenor *kore*. In both the drapery is deeply undercut with a drill, and in the Theseus and Antiope the ears are finished in the same way. In the Athena it is particularly evident on the left side of the figure for piercing underneath drapery, and the mouth of the Gorgoneion is cleared largely by the drill at the corners; incidentally the drill seems to have slipped and has pierced a hole on the side of the Gorgon's tongue.

³ National Museum, Athens, No. 1959.

⁴ A similar drill is used, but very sparingly for undercutting the drapery folds of the

Artemis on the frieze of the Cnidian Treasury and on the drapery of the Herakles in the Cnidian pedimental relief.

The Antenor *kore* must, for historical reasons, be dated soon after 510, since the sculptor of the Tyrannicides could hardly have worked under the Peisistratidae, and can probably be identified as the master of the Delphian Pediments, which, presumably, were executed shortly before 510. The Eretrian sculptures are usually attributed to the close of the sixth century.

From all of which the following tentative conclusions can be drawn: that the drill, known in the earliest stages of marble-carving (and in any case a carpenter's tool as old as Homer²), was not used as a sculptor's tool proper, that is, for the execution of artistic detail in a work of art, until archaic art was well advanced. Probably it came into use among the Attic sculptors of *korai* about the beginning of the last quarter of the sixth century B.C., and became increasingly popular towards the close of the century. Antenor and his pupils extended its use and employed large and deep-cutting drills. But in no case was the drill used except for drapery.

After the year 500 the drill seems to fade in popularity and the later archaic works, like the Euthydikos *kore* or the Eleusis Persephone, show few traces of its use. But the Athena No. 140 in the Acropolis Museum shows the drill used for undercutting drapery by a series of points close together, which was the last stage of the use of the simple drill before it was transformed into a running drill. This Athena is dated to c. 460 B.C.

The flat chisel, the knife and the claw chisel.—Definite proof of the use of the chisel is hard to establish in finished statues. The same cuttings may often be achieved by the aid of a knife or with a sharp-edged file made of abrasive stone. But in the case of the *korai*, the hair, some details of drapery and most of the facial features seem to have been done with a flat chisel. There is as yet no certainty that the flat chisel was used at any time for primary work as was the claw chisel except in the case of very low reliefs which, in the archaic period, are cut almost exclusively with the flat chisel.

In the Attic 'poros' sculptures and in the Cretan limestone series the chisel and knife are the only tools employed after the preliminary dressing. I can find no trace of the use of a claw chisel in the 'poros' sculptures. In the 'Introduction of Herakles' pediment a very narrow-edged chisel was used for the beard and hair of Zeus, for the embroidered garments of Hera and for the hair, beard and whiskers of Herakles. The use of this narrow flat chisel is very apparent on the unfinished parts of the throne of Zeus.

In the 'Troilos Pediment' a fine flat chisel is used for the delineation of the wall at the back and for the beard of the male figure.

On the other hand, details like the scales of snakes (e.g. No. 39 in the A.M.) must have been done with a strong knife and not with a chisel, for the risk of a chisel slipping in such detailed work is very great and a tool with a right-angle and not an oblique application would be essential. The detail in the Prusias sculptures is in every way similar in execution to that of the Attic series, implying the use of a flat chisel and knife for detail. The third horse from the left in the Prusias frieze shows the use of the knife more clearly than most.

² *Odyssey*, IX. 383.

Independent proof of the use of a knife in stone carving is found in the small reliefs in soft limestone from the Sanctuary of Artemis Orthia at Sparta⁶ and in the two grotesques from the Acropolis (Nos. 11, 12). In the latter a chisel may have been used as well, but in the Spartan reliefs the knife was the only tool employed. In both cases the stone was very soft and easily carved with an ordinary blade.

In the case of all works of art in soft stone the material probably hardened after exposure, but when fresh from the quarry was relatively soft.

The compass.—A compass of which one leg ended in a spiked point and the other in a cutting knife-edge is to be inferred definitely from various sources. Its earliest use is in the Prinias frieze in the architectural decoration that runs below the line of horses. Here the radius of the circle of the compass is the same as the lateral distance between the points made by the spiked leg of the compass, as the design was repeated, viz. 9.8 cm. (Fig. 1). The lines cut by the cutting-leg are deep and well grooved, as from the sharp edge of a thick blade. It is of incidental interest to note that only semicircles are cut with the compass: the rest is done freehand.

In Attica the eye of the lion No. 4, the eyes of 'bluebeard' and the eyes

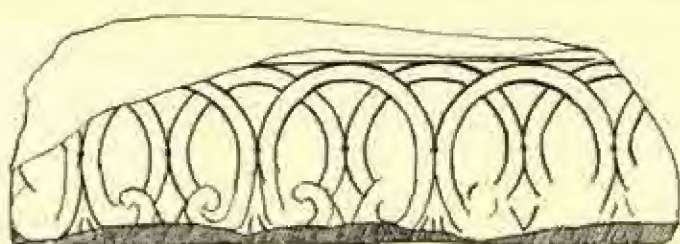


FIG. 1.—DESIGN CUT BELOW THE HORSEMEN FRIEZE FROM PRINIAS.

of 'poros' snakes are invariably done with a similar but lighter compass. In harder stones the same kind of cutting-compass is used in the case of the leopard from the Acropolis, Nos. 552, 554, in Hymettus marble, whose spots are so rendered, and a close parallel is found in the Corfiote leopards. When Parian and Pentelic marbles came into fashion the cutting-compass fell out of use and only the ordinary draughtsman's compass was retained, for the delineation of eyes in paint, and for certain decorative detail.

The square.—Our only evidence that the square played an important part in archaic stone carving is found in the curious example from the Cave of Pan at Vari, on the south-west foothills of Hymettus. Here among other rock sculptures of very great interest (which include a seated figure of a *kore* type) is a relief in the nature of a *Selbstbildnis*. It shows the figure of a man wearing an exomis, holding in one hand a spiked hammer and in the other what is clearly a carpenter's square (Fig. 2). It has been thought by some that he is in the ordinary attitude of a sculptor holding a chisel at right angles to his stone and striking it with a hammer. But closer examination shows that

⁶ *Artemis Orthia* (1930), Plates LXIV-LXXIV.

the hammer is a trimming hammer, not a flat-headed striking hammer, and the so-called chisel is but the half of a square of which the other half falls vertically at right angles to it. The figure is almost certainly that of Archedemos of Thera, whose numerous autographs and poems adorn the walls of the cave. On epigraphical grounds he is dated to the beginning or early part of the fifth century, though his sculptures seem to be old-fashioned even for this date. He appears to have considered the cave to be his special care at this time and describes his various activities there.⁷

Of the use of the square in sculpture we have only this evidence. In



FIG. 2.—THE SCULPTOR OF VAPHIO CAVE.
(From a photograph taken in 1930.)

relief carving and in the earlier stages of dressing a block it would have been of considerable use. But it is remarkable to find it here classed apparently as of equal importance with the dressing hammer.

The gouge.—This tool is used rarely in archaic times, and then only for detail. It can be looked upon as the rarest tool used in the archaic period. Its use is best seen in the Acropolis *korai* at the bottom of the under-chiton of No. 679, on the back hair of No. 673, on the under-chiton of Nos. 690, 683,

⁷ For a full discussion of this question see *A.J.A.*, 1903, p. 263 ff.

and 685 and for the three lines below the waist of No. 684. In the latter instance the gouge is a very small one.

Hair, for the most part, is rendered by the flat chisel, even where curved lines are done; but, usually, curved or rippling lines are laboriously made by the aid of an abrasive file.

It is impossible to indicate any chronology for the gouge. It seems to have been a very secondary tool, the use of which depended largely upon the taste of the individual artist.



FIG. 3.—LOWER PART OF A CYCLADIC IDOL: ASHMOLEAN MUSEUM.

Scale 2 : 3.

One curious use of a powerful gouge for trimming is seen in the case of the fine bronze head from the Acropolis* in the Aeginetan style. Originally the head was surmounted by a cap[†] or helmet. The outlines of the head were found to be uneven after casting, and an unwanted protrusion on the left side of the head, towards the back, covering an area of some nine square

* De Ridder: *Bronzes de l'Acropole*, No. 768, fig. 276.

† *Ibid.*, p. 290.

centimetres, was removed by the aid of several strong oblique blows of a powerful gouge which must have been of well-hardened iron.

Abrasive tools.—After a close consideration of the details of archaic marble sculpture I am driven to the conclusion that the bulk of the refinements of surface and drapery were achieved by the medium of simple rubbing, done with pieces of abrasive stone shaped according to the surface or indentation required.

The nature of the substance used cannot be fixed for certain, but it seems probable that pumice was used for surface finish and in some cases for the actual abrasion of hollows in surface moulding, while emery or corundum was used for deeper cuttings and hollows or for lines and grooves. The matter is dealt with below.

This conclusion, that the bulk of the finer details and surfaces of archaic statues were achieved by the aid of stone tools or by the aid of sand, and not metal tools, is not a hypothesis. That sculpture of no little intricacy and subtlety had at an early date been carried out in Greek lands by the aid of stone tools only is evident from a glance at the remarkable series of prehistoric statuettes, large and small, from Amorgos, Naxos and other of the Cyclades. The particular shape and conventional type to which the bulk of these statuettes conform is largely dictated by the methods by which they were made. It is evident that they were made with stone tools of various shapes, and that the process employed consisted in the main of rubbing (Fig. 3). It is not my intention here to discuss in detail the particular processes used for these statuettes. But at the period at which they were made, which corresponds to the second and third Early Minoan periods, it was most unlikely that any metal tools competent to cut the shapes they exhibit existed. The only metal tools which could have cut the detail and indeed the main structure of these statuettes would have been the rasp and file. But while Minoan chisels and punches are known³⁰ rasps and files are not, nor would copper or bronze, if used for files, prove hard enough to cut the very hard island marble from which they are made. We are, in fact, driven to conclude that abrasive stone harder than the marble was employed.³¹

I do not suggest that the habit of using hard abrasive stones for the rendering of sculptural detail persisted from Early Minoan times to the Classical period in Greek lands. But the knowledge and use of abrasive stones, such as emery, may well have come down to the Greeks. And emery, then as now, was found abundantly in the island of Naxos.

Given the facts that the necessary material was available in the shape of Naxian emery, and that sculpture developed many of its most vigorous and inspired forms in the islands, the use of tools of emery in stone sculpture of the historic period is at least a probability. But if we examine certain examples in detail it seems certain that, in many cases, tools of abrasive stone and not metal files or rasps were used. The fragments Nos. 168 and 499 in the Acro-

³⁰ *E.g.* from Gournia (No. 967), Psychro Cave (Nos. 453 and 488), Psira (Nos. 1592 and 1594).

³¹ The method of rubbing is clearly seen

in those cases where the deep groove between the legs of the statuette has been so rubbed that a hole has been cut unintentionally right through the marble.

polis Museum show in each case human feet on a plinth. The rest of the figures to which they belong has vanished. No. 168 consists of one foot only, the left foot. No. 499 has two feet. In each case the toes, in the process of fashioning the statue, have been divided not by chisel strokes but by the aid of one cutting process done at right angles to the surface of the toes vertically from above (Fig. 4). The tool employed must have been in the nature of a thin disc of hard emery or similar stone with one very sharp edge which was rubbed continuously against the stone. Proof that it was so rubbed with a



FIG. 4.—ACROPOLIS MUSEUM, No. 168.

pressure directly against the stone is seen in the three surviving marks on the edge of the plinth. An area round the foot was subsequently smoothed and lightly polished, but the remainder was left untouched. In this remaining space the tool employed has left its clear traces. No. 168 shows four similar grooves close to the toes very clearly, and shows how sharp was the edge of the tool. Faint traces of the same use of the same tool are seen in front of the toes of No. 571 (a plinth with human feet and horses' hoofs), though here the final polishing has almost eliminated them. Had a flat chisel been used for cutting the separations between the toes, no traces at all would have been

left on the area below the toes. If a file or rasp had been used, the marks would have been different and the teeth of those tools would have left their unmistakable traces. As it is, the superfluous marks below the toes are clear-cut grooves such as could only be made by a thin-edged rubbing tool.

Similar traces of the rubbing-disc are seen in the treatment of the cuirass of the warrior on the Aristion stele (Fig. 5). The groove on the left of the last cuirass-flap is made by a thin sharp-edged tool which must have been identical in type with that which made the grooves on Nos. 168 and 499 above. The incision so made is cut by two grooves, which shows that the thin cutting edge of



FIG. 5.—PART OF CUIRASS FROM THE
STELE OF ARISTION.
Scale 1 : 2.



FIG. 6.—BELT END ON THE TORSO,
ACROPOLIS MUSEUM, NO. 593.
From a cast : scale 1 : 1.

the rubber was used on the right and left of the area, leaving a slight protrusion between the two grooves. Neither chisel nor file nor rasp could have made such marks. The groove on the right of the flap has been properly trimmed and finished.

How far tools of similar abrasive stone were used for cutting the various vertical or oblique folds of drapery on statues is hard to say. But on inner surfaces of many drapery folds, where little or no final polishing could have been done, there is seldom to be found the characteristic surface made by a

file or a rasp.¹² The smoother surface which a stone rubber makes is almost invariable in the earlier marble archaic statues. But of the widespread use of an emery stone for archaic drapery there is as yet no absolutely certain proof. Yet I feel sure that the subtlety of much archaic drapery was achieved more by an infinitely laborious process of abrasion than by any speedier chiselling or filing.

One of the clearest proofs of the use of a rubbing tool of the kind indicated is seen in the drapery of the early Attic torso No. 593 in the Acropolis Museum. The crossed lines that form the pattern of the girdle-end that hangs down in front (Fig. 6) are so evidently made with a blunt pointed pencil of emery or similar stone that there is no room for the suggestion of any other tool. Once granted the use of this stone, the other elements of the drapery are clearly seen to be done in the same way with other shaped tools of emery. The smooth sweep of the drapery lines is clearly so worked and even the hair is stone-cut. The best contrast between stone-cut lines and chisel-cut lines is seen if a comparison is made with the drapery of the 'Athlete Basis' from the wall of Athens where, in the 'Dog and Cat' group, the plain marks of chisel-cut drapery are obvious. Here, as in most very flat reliefs of the archaic period, the flat chisel was the principal tool. The lines so cut are unsteady and uneven and shew at the sides the clear marks of the chisel.

Nor is it surprising, when we come to examine the group of statues cut in Naxian marble and by Naxian or Samian artists, that the treatment of drapery has quite specific peculiarities which indicate the use of a rubber more than of any other tool; in fact there are no traces at all of file or chisel. The Hera of Cheramyne, the bust No. 677 in the Acropolis Museum (Fig. 7) and the figure No. 619, all in Naxian marble, have for long been segregated from Attic work by the peculiarity of their drapery. The folds of the garments are monotonously simple; they are rendered by parallel vertical or oblique lines engraved into the surface of the marble. There is none of the subtlety of Attic work, with undercutting and overfolding. The lines are simply incised. Only by a process of careful and laborious rubbing, with a continuous right-angle pressure to the face of the stone, could the strict parallelism of the lines be maintained. Such rubbing would have given greater safety and greater accuracy of line.

Presuppose a disc-like (or semi-lunar) tool of emery and it is easy to see how this technique developed and how easy it was to achieve. Each line was rubbed. So too the hair of No. 677 (the only one of the three which has a head) is rendered in incised lines that are almost straight. In fact No. 677 is the only virtually straight-haired *kore* from the Acropolis.

In the same way the little rigid figures on the Naxian tripod No. 592 in the Acropolis Museum show their drapery in a few simple incised vertical and absolutely parallel lines. In every case the lines show a precision and clarity which it would be hard to achieve with so uncertain a tool as a chisel. A

¹² For examples of such characteristic surfaces see Rhys Carpenter: *The Sculptures of the Nike Balustrade* (1930), pp. 8 and 17.



FIG. 7.—ACROPOLES MUSEUM, NO. 677.

rubber, following a line drawn on the stone, would, by pressing at right angles to the mass of stone, more easily avoid the risk of glancing off sideways out of control than the chisel. A chisel, giving an oblique stroke, is less under control.

It is no mere coincidence that this fashion of rendering drapery is universal on sculpture cut from a marble found on the same island that contains the mines of emery. The material led to the technique. Nor is it necessarily a coincidence that similar methods had been used in the same island at a remote prehistoric period.

I have described the tool used for this type of technique as an 'abrasive file or rubber.' Such a tool could have consisted of a stone softer than emery or corundum employed *with the powder* of that material, and with the addition of water, to make the characteristic grooves and cuts which distinguish this type of work. As such, it might have been of any moderately hard stone of a gritty kind, sandstone or schist. But the probability is that a piece of native emery was itself employed as a plain cytter without the aid of powder. The emery is found to-day in the islands of Naxos¹² and Icaria¹³ in very large quantities, usually in hard and solid blocks. Any sharp piece with a long cutting edge would have served the purpose, and it need not necessarily have been shaped or even smoothed. But had such shaping been desirable it could have been effected only by the aid of powdered emery, on the principle of 'diamond cut diamond.' Metal tools or stone tools would have been useless for its shaping. It is improbable that corundum was employed, since corundum (which is identical with the ruby or the sapphire, but devoid of their colouring matter) is the absolutely pure form of emery free of intrusive matter and is, in consequence, of no little rarity in a formation which contains emery-stone.

The native emery, as found to-day, would have served the purposes of the sculptor admirably, and was in any case more competent to cut into the surface of marble than any known metal tool. Its very cutting power gave it greater certainty of control, and the method of abrasion, which made the cuttings, obviously involved less hazard and less chance of accident. To chase lines with the flat chisel was an infinitely more difficult and more risky process and, as such, less likely to have been employed by the cautious sculptors of the archaic period.

It remains to be seen what external evidence there is in antiquity for the use of any such abrasive.

First, there is no surviving example of an emery rubber. But there is no surviving example of any tool of the archaic period. Nor indeed have we any known sites of sculptors' workshops until the fifth century,¹⁴ so that our hope of finding direct confirmation is slight. And, even if such a site had been found, the identification of a fragment of emery by excavators would be improbable. Native emery-stone is not too easily distinguished from ordinary

¹² The emery mines of Naxos were made a Government monopoly in 1824. The average output per annum is about 17,000 tons. It constitutes one of the most important deposits of mineral wealth in Greece. Emery is also found in Asia Minor.

¹³ There are specimens from Icaria in the Mineralogical Dept. of the Museum at Oxford.

¹⁴ E.g. the 'workshop of Pheidias' at Olympia (Gardner, *Olympia*, p. 243) and the similar 'workshop' on the Acropolis (Dooge, *Acropolis*, Plan: no. 197).

rocks. It would quickly join the main body of other fragments of stone on the dump! It may, however, be hoped that some watch for fragments of this kind will be made in the future.

The main evidence for its use comes from ancient literary sources. We hear a good deal of the 'stone of Naxos.' It is first mentioned in Pindar,¹⁶ where a strong man is compared with a Naxian whetstone;—

Φαίης κέ νιν ἀνδράσιν ἀθληταῖσιν ἔμμεν
Ναξίαν πέτραις ἐν ἄλλαις χαλκοδάμαντ' ἀκόναν.

That the material from which both whetstones and tools for artistic seal-engraving were made was roughly the same seems clear from Theophrastus,¹⁷ who tells us that : ὁ λίθος ᾧ γλύφουσι τὰς σφραγίδας, ἐκ τούτου ἐστὶν ἐξ οὐπερ αἱ ἀκόναι, ἢ ἐξ ὁμοίου τούτου.

Both Suidas¹⁸ and Stephannus of Byzantium¹⁹ refer to Ναξία λίθος, but a curious confusion seems to have arisen in their sources between the emery of Naxos and a hard material for whetstone which seems to have been found at Oaxos in Crete. Both these authors are our only record for the Oaxian stone, if indeed that can be taken as the explanation of their references to Crete. Whetstone of grit, not of emery, is to-day found at a place called Oxah,²⁰ but the modern Oxah is not the site of the ancient Oaxos, though it may well be the source of the whetstones exported by that city. Stephanus, not realising that there were two possible sources for good abrasives, attempts without success to explain away his difficulty by the suggested reading of κριτική for κρητική. But in so doing he is adding the further confusion between a whetstone and a touchstone, for that is the only material to which the term κριτική could be applied.

That the Ναξία λίθος of these authors is from the island of Naxos and not from Crete seems certain, partly because of the existence of an enormous deposit of the stone on Naxos itself and partly because, if it came from Oaxos (or Φαξός, as it was called in earlier times),²¹ it is hardly likely that it would have been known as early as the time of Pindar as Ναξίαδ. If the stone known as Naxian came from Cretan Oaxus we should at least expect to find textual variants which might lead us to the Cretan name. But these, in fact, do not occur, and the mention of Crete is only found in the confused explanations of the two lexicographers.

¹⁶ *Isth.* VI. 72.

¹⁷ *Περὶ τῶν λίθων*, 77. The stone here referred to is not the Naxian but the Armenian, which, according to Pliny (*N.H.* 36. 22. 4), superseded the Naxian. Of the Armenian stone Stephannus of Byzantium (A.V. 'Αρμενία) says, παρίχοντοί τε λίθος τὴν γλύφουσαν καὶ τρυπῶσαν τὰς σφραγίδας.

¹⁸ *S.V.* Νάξος: ἀπ' οὗ Ναξία λίθος, ἡ Κρητικὴ ἀκόνη . . . ἢ τε κριτικὴ ἀκόνη, ἐπεὶ διὰ τοῦ γράφειν ἡ διακρίνουσα καὶ σφραγίζουσα σημαίνει. There is in addition some textual confusion

in this passage, which has remained unsolved by the few editors of this author. The confusion of whetstone with touchstone may be due to the writer having drawn part of his information from Theophrastus, who discusses touchstones immediately after his account of whetstones.

¹⁹ Νάξος πόλις, καὶ Νάξια λίθος, ἡ κρητικὴ ἀκόνη. Νάξος γὰρ πόλις Κρήτης. Suidas more briefly cuts the Gordian knot!

²⁰ Spratt, *Remarks on Crete*, I. 127.

²¹ Head, *Historia Numorum*, p. 439.

Pliny, without any hint or suggestion of Crete, calls it, simply enough, 'Naxian,' which his readers would without exception have taken to refer to the Cycladic island. And Pliny tells us more about it. In describing the process of cutting marble he tells us that a saw should be used with the aid of 'sand.'²² The best sand was the Ethiopian, the next best the Indian and the Naxian. But the two latter have, he says, the same defect, which is shared by the Egyptian brand, of leaving an unequal surface on smooth faces. But we learn that the Naxian and Egyptian were in use in earlier times—*haec fuere antiqua genera marmoribus secandis*. He adds that Thebaic sand was used for *politura*, in stone-work, and further tells us that for long Naxian stone was preferred for the polishing of marble statues and for the cutting of gems—*signis e marmore poliendis gemmisque etiam scalpendis atque limandis Naxium diu placuit ante alia*. Later,²³ he remarks that among the abrasive stones which were used with water, as contrasted with those which required the use of oil—*Naxiae laus maxuma fuit, mox Armeniacae*.

From the silence of Theophrastus about Naxian stone and his mention of the Armenian it may, perhaps, be inferred that the Naxian had, by the fourth century B.C., gone entirely out of fashion and been replaced by the Armenian. Certainly Pliny's reference to the *antiqua genera* and his further remarks, *Naxium diu placuit ante alia*, and *Naxiae laus maxuma fuit, mox Armeniacae*, indicate something of the kind.

But it is not quite clear in Pliny where the use of Naxian sand can be distinguished from use of pieces of the actual emery itself. Emery sand can be produced by crushing the emery stone, or from sandy deposits in the proximity. Such sand is referred to by Hesychius²⁴ and Dioscorides²⁵ as σμυρίς, and in the LXX Book of Job²⁶ as σμυρτής λίθος.

The use of emery-stone as a cutting instrument must be inferred both from the use of the term λίθος by Stephanus and Suidas and the πέτρα implied in the passage of Pindar. Pliny, on the other hand, refers to the sand when he calls it *Naxiae* in one passage (*Simile Naxiae vitium est et Ooptitidi*), but later, where he calls it *Naxium* and states how it was used for statues and gem-cutting, he is thinking of it as the stone itself, not of the shaped whetstone, the noun understood being *saxum*. The final mention (*Naxiae laus maxuma fuit*, etc.) takes *cos* as its noun from a preceding sentence.

In short, Naxian emery could clearly be used on statues in the two distinct ways. Nor is it yet quite certain from the evidence of the Attic, Naxian and other archaic statues which of the two methods was employed. But that Naxian emery, and not a metal tool, was the medium of cutting detail and surface patterns, seems indisputable.

S. CASSON.

²² *N.H.* XXXVI. 6. 9. *Harenae hoc sit et ferro videtur ferri, serra in praetenui linea prementis harenae versandoque timetis ipso assante, etc.*

²³ XXXVI. 22. 47.

²⁴ *S.v.* Σμυρίς. *ἀμυν λίθος ἢ σμύρτης* οἱ

σκληροὶ τοῦ λίθου.

²⁵ *V.* 166: *Σμυρίς λίθος ἐστίν ὃ τὸς ψήφους οἱ βακτηριογλύφοι σμύχουσι.*

²⁶ *XLI.* 7: *ὁ δὲ συνδεσμός αὐτοῦ, ὡς περ σμυρτής λίθος.*

NOTES

The Byzantine Congress at Athens.—The third Byzantine Congress, held at Athens in October, was attended by some 350 persons, of whom only two were British. While several other Governments were represented and the French, German, Italian and other continental Universities and learned societies sent large delegations—36 delegates came from Yugoslavia alone—only one British learned society, the British Archaeological School of Athens, was represented, and—as was remarked at the Congress—Great Britain was conspicuous by her absence. Yet the Congress was admittedly an important and successful meeting. In all the four sections of history, archaeology, philology and law, medicine and other sciences, notable papers were read by eminent Byzantinologists. In the two sittings of all the four sections united together, Professor Jorga spoke about 'The great Byzantine families in Roumania and the rebirth of the idea of the Empire among the Roumanians'; Professor Charles Diehl delivered a graceful address on 'The Legend of the Emperor Theophilus'; Professor Helsenberg, the editor of the *Byzantinische Zeitschrift*, spoke with great tact about 'Byzantine studies since the World War, their development and their aims'; Professor Darco of Debreczen commemorated J. B. Bury; the great Greek poet, Palamas, told of 'The Byzantine heritage in modern Greek poetry'; and Professor Grégoire of Brussels examined the sources of Digenis Akritas. There was a visit to the monastery of Daphni, where, after a brief lecture by MM. Koukoulès and Soteriou, an *al fresco* luncheon was offered to the Congressists by the Mayor of Athens, and excursions were made to Monemvasia and Mistra and to Salonika. The proverbial Greek hospitality filled up the rest of the time, and the President of the Republic gave a reception at Government House to the members of the Congress, which will next meet at Sofia and then in Italy.

W. MILLER.

Byzantine Research in Italy.—In 1921 there came into existence a small Society for the preservation of the remains of Magna Grecia which were fast disappearing, and for making new excavations on sites where more of such remains might be looked for. This Society during its short life has saved much and found much more, working quietly and unobtrusively, and at very little cost.

Side by side with these remains of Magna Grecia, even more widely spread and hardly known except to a few scholars, are the remains of 'Italia Bisantina,' ruins of monasteries, caves, lauras and frescoed cave-chapel. These monuments of mediæval Byzantine history are fast disappearing from neglect. The records of them are very sparse; there are few photographs and no coloured reproductions. They are, in fact, in the same condition as were the remains of Magna Grecia.

Many Italian scholars are well aware of the importance of preserving these traces of a departed life, language, liturgy and art, and those who are working with them are anxious to arouse the same interest in England.

It is therefore proposed to form on the same lines and in connexion with the *Società Magna Grecia*, of which Professor Orsi is the President, a kindred Society of *Italia Bisantina*, consisting both of Italian and English members. Such a society being closely allied to the *Società Magna Grecia* would have the great advantage of working under the direction of Professor Orsi. The able and enthusiastic Secretary of the *Società Magna Grecia* has offered his own services and the use of the offices to the Society we hope to form.

Essential to its formation are :—

- (1) The interest and support of Byzantine and mediaeval scholars and those interested in early Italian art.
- (2) The active co-operation of a few keen photographers, artists and archaeologists who would join in expeditions to these sites.
- (3) Subscriptions, which as office expenses will be practically nil, can all be devoted to the furtherance of the objects of the Society.

All interested in the project are invited to communicate with the Hon. Secretary, Miss Gertrude Robinson, Palazzo Cardelli, Piazza Cardelli 4, Rome.

A Correction.—In my Jubilee Presidential address, 'Fifty Years of the *Journal of Hellenic Studies*,' as printed in *J.H.S.*, XLIX, p. cv, I give a wrong explanation of the fact that the 49th volume was still in progress. The true reason is that Vol. XIII represents the two years 1892 and 1893, when the Megalopolis Supplement was straining the resources of the Society. I discovered this before the delivery, but the corrected proof afterwards miscarried.

A. H. SMITH.

'An Alleged Archaic Group.'—This is the title of the attempt made by Ashmole, in the last part of the *Journal*,¹ to establish the spuriousness of the group of a man carrying off a woman which had been published by Studniczka.² His attack is mainly directed against the opinions of 'a certain professor'; obviously a German, as his quotations show. Ashmole does not name the professor out of consideration for his scientific standing; but that no other of my German colleagues may be suspected, I willingly admit that I am the offender. I would, however, observe that my discussion, in addition to the quoted 'panegyrics,' which isolated from their context leave an exaggerated impression, contains solid arguments for the authenticity of the group; and that it was drawn up over three years ago, before the long verbal and written, private and public discussions of the group. At that time I should have been perfectly willing to publish my statement—in its entirety, of course. Now I should naturally express myself differently on many points.³ But in fact I have not found myself compelled to alter my view, not even by reason of the technical arguments advanced by Ashmole. Not that I despise such arguments, as might be gathered from Ashmole's words; but they must be completely convincing.

Ashmole's points are—

(1) At one point the hair of the man is carried on over the surface of an apparent break. This must be examined on the original, as Ashmole's illustrations are inadequate. It would be in any case an astonishing gaucherie on the part of a forger.

(2) The use of the running drill, which in Athens appears for the first time between the Parthenon and the Nike balustrade. But no one has ever considered the group Attic, and no argument is adduced that the drill may not have been in use a half-century earlier—say in the technically progressive region of South Italy. But further, Studniczka and the sculptor who assisted him have expressly questioned the use of the running drill. We must examine whether the hollows in the hair could not have been produced without the running drill.

I regret then that Ashmole's paper has not settled for me the question as clearly as we hoped; for I am by no means so 'quasi-papal' by constitution that the doubts expressed by so many experts do not give me cause to think. But it is a long stride further to set the group down as a forgery. I feel that until new material is adduced the question is not ripe for decision, and but for Ashmole's challenge would not have given an opinion

¹ *J.H.S.*, 1930, pp. 98-104.

² *Jahrbuch*, 43, pp. 140 ff.

³ See my remarks in *Gnomon*, 1929, p. 290. Albizzati's threatened attack has meanwhile appeared (*Historia*, 1929, pp. 65 ff.); unfortunately it has adduced nothing of decisive weight.

publicly. I have, however, recently ascertained one new point; of negative import it is true; since I saw the exhibition of Dossena's work which has been moving around Germany. I consider it impossible that he made these sculptures. Even the lying warrior, although he does resemble in style the sculptures, reveals by his Michelangelesque rhythm the difference, wide as the heavens; a striding Athena of silver shows what a forger only superficially acquainted with archaic art makes of the Athena (which Studniczka condemned, but which I believe is by the same hand as the group). Dossena knew these pieces, he has had them in his hands, he has perhaps attempted to restore them; a greater share in them than this he cannot have had.

Erlangen.

GEORG LIPPOLD.

Dr. Lippold's reply leaves my main contention untouched.

1. Does he believe that the hair is carried over a break, or not?

The argument from *gaucherie* is fallacious; remember, among many other blunders made by expert forgers, the inscription on Dossena's masterpiece, the 'Renaissance' monument in Boston, which begins '*Oblit enim profatus Marinus* . . .'

2. Does he believe that the running-drill was used?

If so, then he must prove, not assume, first, that the group came from South Italy; second, that South Italy was technically progressive and could use this instrument fifty years before Athens.

If not, how were the grooves to which I have drawn attention produced?

Have it both ways he cannot. And that was my point: let him leave academic archaeology for a moment, and, after three years, examine the marble itself, in order to make up his own mind on these questions—questions, not of theory, but of fact.

BERNARD ASHMOLÉ.

A Note on the Excavation of the Sanctuary of Artemis Orthia.—The three of the excavators of the Orthia Sanctuary most concerned confess to a feeling of discouragement on finding that in the case of one reader at least all their endeavours to tell a plain tale plainly have failed, and that their power of expression has not been equal to the task laid upon it. The reader in question is the writer of the very careful and painstaking review of 'Artemis Orthia' which has appeared in the *J.H.S.* for this year over the initials V. W.-G. It is plain that to the reviewer the grounds on which the latter periods of Laconian pottery, the periods of its decay, upon which so much depends, have been classified are neither clear nor convincing. And since, in fact, the evidence on which that classification was made was both clear and convincing, the failure must lie in the exposition. In the excavators' hands the spade has been mightier than the pen. Or does the fault lie in an historical training which has not been adequate to the appreciation of the minutiae of archaeological evidence? 'The historian,' we are told, 'may differ from the excavator in his estimate of what is proved.' No doubt: the review shows it; but proof remains proof, and the difference in estimate can only proceed either—perish the thought—from a deficiency in the historian; or, which here comes to the same thing, from failure in the clarity of the excavators' exposition. The failure has been so complete that some explanation seems called for.

The historian's view as set forth in this review is in effect that, (A) the claim of the excavators to have based their classification of the finds, particularly of the pottery and lead figurines, on the evidence of stratification rather than on that of style is untrue, for the excavators, though insisting loudly on the claims of stratification, have been natively inconsistent with their profession, and have, in fact, based their classification, not on any objective stratification, but on subjective and so disputable criteria of style; (B) that the deposits above or outside the sand, with which the level of the central part of the sanctuary had been raised, were not stratified, and that therefore the classification of the objects found in them is practically valueless; and (C) that the deposits do not prove a progressive

degeneration in the Spartan minor arts after 600 B.C., or exclude the possibility of a period of fine development say in the fifth century B.C. It is possible, that is, that there were great gaps between the successive stages of Lacomian art distinguished by the excavators, and that these gaps may well have been filled by a period or periods of a vanished great art.

As to A, it is true that the excavators have said that a classification based on considerations of style must give way, if there is conflict, to a classification based on stratification. In the reviewer's eyes it was, it seems, an inconsistency, almost an indecency, for them, having said this, to have paid any attention to the style of what they found, to have argued, for instance, that the first deposits above the sand continued the series without a break from the latest deposits below, because the style of the pottery in the above-sand deposits showed a continuous development without any break from the below-sand deposits. This view could not have been taken by the reviewer if the excavators had not, too optimistically, omitted to explain that in the above proposition the word *style* does not mean in the main the style or character of the thing classified. The proposition means that, if there is evidence from stratification of the development of an art; as to the relative ages of its different stages or styles; that evidence will outweigh any classification of those styles which uses as sole criterion the student's ideas of style derived from his general knowledge of art.

Twenty years ago it seemed rather necessary to insist on this proposition, because just after the excavations at Sparta had begun, there had appeared a very acute study of 'Cyrenaic' vases, necessarily based only on considerations of the style of archaic Greek pottery in general, the conclusions of which were shown by the excavations to be in many cases mistaken.

A proper understanding of the proposition would have kept the reviewer from harping on the fact that the excavators did take an intelligent interest in the style of what they were finding, and did draw legitimate conclusions from the positions in which the different styles were found. It might have kept him, too, from the intellectual but irrelevant analysis of the different genera into which style may be divided, the italics of which complacently dot his pages with a great appearance of subtlety. We say, for example, that there is of one kind of style (in which we include the reviewer's *Formgefühl*, *fashion*, *technique* or *mechanism*) is shown by the stratification to be earlier than was *b* of another kind of style (*Formgefühl*, etc.), and that this must, if there is conflict, outweigh any other classification based solely on considerations of the style (*Formgefühl*, etc.) of archaic Greek pottery in general. What have *Formgefühl*, *fashion*, *technique* or *mechanism* to do with it, except to display the reviewer's logical subtlety?

The excavators are not perhaps sufficiently acute logicians to have been able so to resolve the word *style* into its component parts. In any case they do not think it necessary. The general appearance by which one kind of art or one stage of an art can be recognised from another is what they understand, and what they believe is generally understood, by the word.

As to B, the excavators have indeed claimed that the classification of the finds is based on stratification throughout the site. But, again with a too confiding optimism, they omitted to make clear what is the commonly accepted archaeological meaning of the word 'stratification' as applied to a site. It may, of course, mean, and in the simplest cases does mean, that one earlier thing is covered up by, and, in the simplest case of all, sealed up under a later thing. The review suggests that its author is a purist for whom these are the only meanings. And indeed this simple situation about represents the layman's understanding of the term. But the critic needs to go further, for a wider meaning is attached to the term in archaeological writing. As in geology, from which the term is taken, strata may be twisted and folded out of all apparent meaning, and yet yield an intelligible story to patient labour; so on an archaeological site the meaning of deposits may not be obvious at first sight, yet may be interpreted convincingly by careful study of the position of the deposits and of their relations one to another and to the original contour of the ground. For this it is not always necessary that one deposit should immediately overlie another. A stratified site, in fact, is one in which study of the position of these deposits which are left will reveal the order in which they were laid down, although the

situation may be very different from the simple position outlined above. A proper appreciation of these possibilities is an essential quality for the reviewer of an account of an excavation.

At the sanctuary of Orthia the wider interpretation of the word applies to the deposits above and outside the sand, the narrower to those below it. The proper stratigraphical analysis of a site is indeed very far from the mechanical observation of levels: it involves an understanding of the circumstances in which every parcel of earth, every piece of wall, got into the position in which the excavator finds it. So far from the position of one thing above another being the only test, it may even happen that the earlier object is found above the later. Round the walls of the Later Temple of Orthia the excavators, in fact, found above the series of Laconian sherds overlying Geometric a thin but well-marked stratum of Geometric sherds. The conclusion is not that Geometric pottery succeeded to Laconian, as it had preceded it, but rather that when the foundations of the walls were dug down through the Laconian and Geometric deposits, some of the earliest sherds were removed from the bottom of the trench and thrown by the spade on the top of the later layers. The right conclusion was that these walls were later than all the disturbed strata, although actually beneath the walls no pottery at all was found. And this conclusion was reinforced by the observation that the strata had the same levels on each side of the intruded walls. The parallel case is common enough in geology. The lava thrown out by a volcano would be admitted by every geologist to come from an earlier stratum in the crust of the earth than the alluvial deposits which it has come to cover at the foot of the mountain. In such cases the excavator has, of course, to show why he interprets his stratigraphical evidence in this way. The evidence must be read, that is, not mechanically, but in the light of every indication afforded by the site as a whole. To ignore this consideration is to display elementary ignorance of stratigraphy.

It would appear then from the review that in the author's eyes the true creed of the excavator should be that, if one thing is above and another below, they must be held to be proved (1) as later and earlier respectively, and that if things are not in this relation nothing can be known about them, and any attempt to reason from their position must be futile. Further, that if the appearance of things as well as their position is in any way taken into account, then to futility is added positive immorality. Such things are, and must be left, beyond salvation.

Anyone holding this severe creed must naturally regard all the deposits at the sanctuary of Orthia other than those below the sand, and perhaps those immediately succeeding these, as utterly lost. It seems therefore that the grounds should again be set forth on which the more charitable view holds that these deposits may still be saved and gathered into the fold of knowledge. And a further observation on style and stratification may be of use here. At the Orthia, as at many other sites, deposits were found that were not from their position alone more than very vaguely datable. This was particularly true of some of the Laconian VI deposits in the arena. But when the position in the series of Laconian art of the objects found in such deposits, in this special case Laconian VI pottery and the lead figurines which go with it, had been fixed by the stratification of other parts of the site, it became possible to assign a much narrower dating to these hitherto floating deposits. And such an argument for dating is one that rests upon the strictest principles of stratification, and, although it involves the use of the word 'style' which has proved to the reviewer such a sad stumbling-block, is entirely distinct from any argument as to date resting on general knowledge of similar products seen in museums. And the same considerations apply to the distinction between Laconian I and Laconian II pottery. When the distinction has once been made by stratigraphical evidence, by finding, as we did, in lower levels nothing but Laconian I pottery and then above it Laconian II with or without some admixture of Laconian I, it was then possible to identify a Laconian II deposit below which no Laconian I at all had been found. The argument follows from a study of stratification and from nothing else: except, of course, a proper examination and study of the finds as they are made.

The deposits at the Orthia sanctuary consisted of dedications to the goddess, and were only intelligible on the supposition that new dedications were put first of all into the

temple, after there was a temple, and then, as space ran short, were thrown out of it, though not outside the temenos, to make room for yet newer offerings, and that this process took place fairly regularly. Now below the sand, with which the level was raised, the area was comparatively flat, and the ejected objects were scattered over it in layers which even the purist would regard as well stratified. From the bottom upwards, early and late Geometric, Sub-Geometric, Laconian I and Laconian II pottery were found, associated with lead figurines and other classes of objects, all in their way useful for the establishment of the story of the sanctuary and of Spartan art. These periods were, of course, not found ready labelled. The contents of the many levels, averaging perhaps five to each of the many small plots into which the site was divided for the purposes of digging, were studied, and it was observed that the deposits gradually changed their nature. It seemed that the process of development could best be presented by giving the different stages labels. But though it was convenient to label the different stages, it was never intended to suggest that there is any hard-and-fast barrier between them. No mention having been made by the excavators of any cataclysm in the history of the sanctuary which alone, by causing either a break in time, or (what is in this case inconceivable) in the character of the worshippers, could have brought about any such sharp line of division, it did not occur to them to guard against any such interpretation.

It is, of course, gratifying, though not surprising, to find that the differences, for instance, between Laconian I and II in *technique* and *fashion* are such as to be, according to the reviewer's historical outlook, 'the basis of a legitimate distinction in time,' but it is open to the excavators to point out that no one who had grasped the order of the processes by which the distinction between Laconian I and II was arrived at, could have framed the sentence in that way. That it was so framed shows that the only process conceived of by the historian was that of looking at the pottery and then deciding that *this* must be earlier than *that* because it is less developed in *fashion* and *technique*. Whereas the archaeological process by which the distinction was arrived at was this. There was nothing under the sand in the middle of the arena to have disturbed the even layers of stratification; there is a layer of *this*, then above it a layer of *this* with a little of *that*; then a layer of *that* with a little *this*; then a layer of *that* alone. It is clear that *this* is earlier than *that*. The next stage is to analyse the difference between *this* (Laconian I) and *that* (Laconian II). And it is, of course, gratifying, though not surprising, that the difference should turn out to be a reasonable one. But by this method it is certain that we have got the series in the right order. On the other method, that which seems natural to the reviewer's mind, it would be possible to take hold of the series by the wrong end. We might quite conceivably have to do with a period of decay, with a falling off rather than with an advance in technique.

The reviewer remarks as regards Laconian II that it is not fully represented as found at the Orthia site, and puts forward a theory that much of the Laconian II stratum was swept away by the flood or flattened to receive the sand, adding, 'it will follow, if the stratum was interfered with in this way, that objects found in the same level are not necessarily contemporary.' No doubt we have by no means all of the objects belonging to Laconian II, but that anything material has been lost is contradicted by the fact that Laconian II is a logical development of Laconian I, just as Laconian III is of Laconian II. That the flood can in any such way have confused the stratification is completely contradicted by the consistency of the evidence of the deposits. That the earliest layers above the sand follow closely in time upon the latest below the sand is clear from the limestone reliefs which were found below the sand, in the sand, and above the sand. Further, the solid lead figures were found below the sand and also above it. The reviewer adds in a note, 'the loss of much of the later Laconian II stratum is also suggested by the fact that the 15,000 surviving lead figurines from under the sand show no difference in Laconian II. This would be surprising at this progressive time if one had a full series over the whole period.' It is incorrect to say that no stratigraphical difference was observed in the types of the 15,000 lead figurines below the sand. In Laconian II (Lead II) the spike wreaths first begin (p. 270), and, as stated on p. 281, the difference between Lead I and II is that in the latter period a greater number of types are employed and,

like the spike wreaths, certain types such as bulls and horsehead ornaments first appear. In the earliest deposits above the sand the spike wreaths develop a great popularity and, though certain of the jewellery types continue, the jewellery types generally decrease. Nevertheless, the continuance of certain types, such as bulls, above the sand shows that the sequence begun below the sand is unbroken.

After the raising of the level the same process continued, but with this difference, that there had clearly been an endeavour to keep the sandied area between the temple and the altar clear, and that by the very raising of the level the space available for the ejected deposits was no longer flat. Now in two directions on the edge of the sand on either side of the new temple was a deposit filling a V-shaped gap formed by the sloping edge of the sand and the original sloping side of the hollow in which the sanctuary lay. This deposit, because the pottery in make and decoration, or, as we might say, in style (in *Formgefühl*, *fashion*, *technique* and *mechanism*), was clearly an immediate development from Laconian II, and—for other reasons duly appreciated by the reviewer—was labelled Laconian III. In other directions pottery was found which, again judged in the same way, by its own style (*Formgefühl*, *fashion*, *technique* and *mechanism*), clearly belonged to the same series, but had at the same time certain marked differences. It was not contemporary with Laconian III, for none of it was found in any clear association with Laconian III deposits. It was not earlier than Laconian III, for none of it was found below the sand. It was then clearly later than Laconian III. But the differences were such as to suggest very strongly that there was a gap in time between the two. This suggestion arose from a comparison of the appearance (*Formgefühl*, *fashion*, *technique* and *mechanism*) of the two different lots of sherds: it did not arise from any preconceived notions of style, and indeed must have arisen in the mind of anyone studying the sherds, even if he had never seen a Greek vase in his life. Such an observation is not an argument from any general principles of style, or in any way inconsistent with a proper reliance upon stratification: it should rather be regarded as an obvious use of common sense in the reading of the evidence supplied by the stratification of the site. For this we have already entered a plea. It was observed also that among the Laconian III was a certain proportion of pieces which differed from Laconian III in *Formgefühl*, *fashion*, *technique* and *mechanism*, and differed from it in the direction of the obviously later deposit. It was, in fact, half-way towards it. And more of the half-way kind of pottery was found with the later deposit. The only interpretation of these facts is that the style labelled Laconian III began to change while the deposits were still being thrown out in the direction in which they had begun to be thrown after the filling in of the sand; it had begun to change, that is, before the V-shaped gap between the edges of the sand and the sides of the natural hollow had been filled up; and that, when these gaps had been filled up, the dedications began during this first period of definite decadence to be thrown out more in an easterly direction, and continued to be thrown in that new direction after the full flood of decadence had set in with the style which for nearly three years was known to the excavators, not by any so question-begging a name as Laconian V, but by an entirely colourless, but to us sufficiently distinctive name. We called it, in fact, the Tontous style, after George Tontous, the Cretan workman who first struck a deposit of it in the Trial Trench B which we cut in 1906, the first year of the excavation.

When the full facts above became clear, the intermediate style found in both deposits was seen to fall into place as Laconian IV, while Tontous' sherds were equally clearly Laconian V. The reviewer suggests—and here we do meet a reasonable suggestion—that Laconian IV may merely be the inferior ware contemporary with Laconian III. That is conceivable, though the fact that it is found also with Laconian V would raise fresh difficulties. The suggestion might even in itself be probable if there were something else to bridge the gap between Laconian III and V. But the site produced nothing else that could fill the gulf, and the pottery known as Laconian IV does fill it in a perfectly natural way. Thus the probability is so strong as to amount to a certainty that the name Laconian IV states the position of this style correctly. Again, it is not intended that the frontiers should be rigid. Certain pieces of Laconian IV may in date be bad Laconian III or good Laconian V, but this admission does not affect the fact that the style shows a

continuous decadence from Laconian III through Laconian IV to Laconian V. And the same process of reasoning applies to the difference between Laconian V and Laconian VI.

One further point arises in connexion with the reviewer's criticism of the stratification of the sixth-century deposits. He states that it is significant (significant, we are bound to suppose, of a complete confusion of the deposits of this period) that no distinction can be made among the 58,000 figurines found in the Laconian III and IV deposits. If we wished to make play with the word "significant," we might well apply it to this version of the introductory remarks to the section on Lead III and Lead IV on p. 270. The review continues: 'That a deposit of figurines extending over a century (a century, moreover, in which the art is said to have made rapid progress to its height and subsequent decline) should be exactly stratified and yet show no development is very difficult to believe.' But it is stated on p. 270 that 'the types most akin to Lead I and II figurines found below the sand could be classed as Lead III, and that those which continue in Lead V could be called Lead IV. The solid figures in any case are most probably to be confined to Lead III.' This caution on the part of the excavators in not attempting to draw any hard-and-fast line between two periods, the later of which develops gradually out of the earlier, seems to displease the reviewer. Nor is it anywhere stated that in Laconian III-IV the art of the lead figurines made rapid progress to its height and subsequent decline. As a matter of fact it is stated on p. 281 that 'with this period the figurines changed profoundly in that the total number of types and varieties in use decreases greatly, especially the jewellery and animal types.' Further, three types which were excessively popular in this period 'become much smaller and seem to have been much more hastily and roughly made.' The excavators thought that by these statements it was clear that by Lead III the great age of lead figurines was over. To make it still clearer it should perhaps now be stated even more explicitly, in order to assist those like-minded with the reviewer, that in Lead III-IV the lead figurines decline noticeably in quality (technically, that is), in size, and in the number of different types employed. Cheap mass production was already in vogue to satisfy a fashion which obviously demanded quantity and not quality. Finally, although the stratification admits of no rigid distinction between Lead III and Lead IV, yet, as we have shown, such a distinction can be made among these figurines if types and technique with their backward and forward connexions are taken into due account. The excavators' view is that such minor arts reached their climax about the year 600 B.C., when the sand was laid down, and that all through the sixth century they were in a state of decline. In the chapter on the pottery it is said on p. 80 that 'with the beginning of the sixth century the style reached its highest level.' For the masks, Mr. Dickins says on p. 106 that the masks found below the sand are 'almost invariably of a bolder, freer and less conventional type than those of which the context is later. These later masks are poorly and hastily made.' Of the ivories too it is said on p. 211 that all the best ivory carvings belong to the last period before the year 600, after which we have hardly any more ivory at all; only carvings in bone, which are for the most part either grotesque like the chariot plaque on Pl. CXVI, 2, or dull and uniform like the bone birds on Pl. CXIII. It is only in the sixth century too that the bone figures of Orthia, shown on Pls. CXVII-CXX, of which any number seem to have been cut to pattern, become at all common. We have just seen that the same decline is to be observed in the lead figurines also at this period.

And the reviewer's remarks on the dating of the lead figurines of the later periods also need comment. On the distinction drawn between the figurines classed under Lead III-IV, Lead V and Lead VI he writes: 'collateral evidence for the relative lateness of Laconian V is, however, adduced from the figurines. . . . It seems, however, that the distinction observed in the figurines is mainly this, that the types are mixed in a different proportion: though there is also some distinction of style. The numbers of figurines found in the pockets seem too small to allow the proportion of types to be decisive in naming them Lead V: is the style decisive?' It is true that in the Laconian V (Lead V) deposits there were only ten thousand six hundred and seventeen figurines, but in this 'small' number it was noticeable that the jewellery types and the animal

types, except the deer which were introduced in the preceding period and cocks, ceased, while on the other hand two of the so-called Poseidon and Hermes types were peculiar to these deposits. By these signs and not by 'style' could the Laconian V (Lead V) deposits be distinguished, and they are further clearly separated from the Lead VI deposits, which were marked by the presence of the lead discs. The reviewer thinks it 'noteworthy' that Lead V should include types found in Lead III-IV and others found in Lead VI. Surely it is not 'noteworthy' but natural that an intermediate stratum should show connexions on the one hand with the preceding and on the other hand with the succeeding stratum. The numbers of the types used in any one period, and consequently the proportion in which the figurines are mixed, are the criteria which separate one period from another. On p. 250 it is stated that 'careful study . . . of the stratification . . . and the chronological separation of the various deposits provided a sure basis, and the figurines themselves when carefully examined in detail showed that there was a clear evolution or sequence of types, of style, and indeed of fabric. . . .' Thus the reviewer should see that in classifying the lead figurines stratification came first, and next the sequence and proportion of types, and that only as supplementary to these criteria were style and fabric, which the reviewer classes as a branch of style, taken into account. Finally, the conclusions derived from the figurines found at the Orthia site were in every case borne out by the study of these found at the Menelaion.

We now come to the third point on which it seems that the excavators have failed to express the facts clearly. It is suggested by the reviewer—and this is our point C above—that because it is certain that a good deal of the later deposits had been swept away, probably when the Roman theatre was built, it is unsafe to argue that in the small *arta* (for that is all that the Orthia deposits represent) Sparta had no great period, say in the beginning of the fifth century, comparable with the Attic. Incidentally it may be pointed out that the reviewer is in complete error in stating that 'the fact that there is practically no Laconian V or anything else on top of Laconian III and IV makes it clear that all the main deposits thrown out from the temple between the end of Laconian IV and the building of the Roman theatre were swept away.' As has been shown above, it is very improbable that much of any sort was ever deposited above the Laconian III and IV, once the V-shaped gap had been filled up, and the reviewer's assumption that, because it was not found there, it must have been swept away, shows that he has not grasped the validity of any but the simplest kind of stratification. However, it is, of course, true that much of the later deposit elsewhere had been swept away. In the circumstances, however, the argument adversely criticised by the reviewer holds good. For the argument *ex absentia* thus condemned by the strict historian may be perfectly sound. It depends on the quantity of the deposits. If no more than five pieces of decadent pottery belonging to a certain period were found, it would indeed not be safe to base any argument on the absence of fine pottery. If, however, fifty thousand pieces of decadent pottery turn up without any redeeming admixture, the probabilities against any complete elimination on the site of an actually existing fine ware are overwhelming. It would, indeed, be an exaggeration to say that fifty thousand sherds of Laconian V and VI were found at the shrine of Orthia, but it is plain that the published account has quite failed to bring home to the reviewer the extent of the mass of decadent sherds, which was great enough to afford a very firm foundation for the despised argument. Had a fine period contemporary with these existed, it is inconceivable that no specimens should have been found. The reviewer has no right to imply that the number of decadent sherds was few enough to admit the possibility of the existence of a period of fine development of the Laconian minor *arta* contemporary with Laconian V or VI, which did not leave one representative piece. This implication indeed, and the pseudo-legal phrase *Not Proven* with regard to the later classification, and the subtle but irrelevant analysis of the word 'style,' all lend a specious air of profundity to the reviewer's remarks, rather like the mud in a puddle.

Incidentally,—though this is beside the book, and, whatever might be the advantage to the readers of the *J.H.S.*, the authors have no right to expect that a reviewer of work at the Orthia sanctuary should make himself acquainted with the results obtained at other

Spartan sites and published in back numbers of the *B.S.A.*,—corroboration of this *ex absentia* argument against any such fine period in the minor arts at Sparta is to be found in the results of the excavation at the Menelaion and at the Chalkioikos sanctuary. The deposits on the Chalkioikos hill were completely disturbed, having been tipped down a steep slope, but all the Laconian styles, as found at the Orthia, were represented, and the only hint of anything that the shrine of Orthia missed were the few shards decorated in opaque paint on a dark ground.¹ The vase found in 1906 at the Heroon by the bank of the Eurotas may also be mentioned here.² But nowhere do we find any hint of a period of greatness subsequent to Laconian III. The pieces just mentioned also are exceptional, in that they have no place in the typically Laconian series of styles, the development of which is continuous, and leaves no place at all for any period of fine work such as is suggested by the reviewer.

What has been said above is sufficient, the writers hope, to show that the author of the chapter on Pottery disclaims any power of 'intuition,' a power which the general tenor of the review shows that the writer would expand very much in the sense of Browning's lines

'the truth was felt by instinct here,
—Process which saves a world of trouble and time.'³

The preceding seemingly harmless sentence that 'he is in the fortunate position of having seen the pottery in the strata and so gaining a first impression of differences which subsequent prolonged study in the museum only confirmed,' calls for notice. All excavators are fortunate in the sense that they are first on the spot, but these excavators resent the suggestion contained in these words quoted, that they have in any way need their good fortune to press upon their readers views for which they cannot produce evidence. But more damaging in the sentence quoted is the suggestion that the finds were removed out of all connexion with the strata, and were then studied in conditions which would allow the facts of stratification to be subordinated to the student's subjective views. If 'in the strata' means 'in the earth as found,' the remark is meaningless, as no careful study is possible till the finds have been washed. But if, as it seems, it means a first glance at the finds before they have been put in show-cases, this reveals an incomplete acquaintance with the function of labels and trays and boxes, by which the products of the different areas and strata of a site can be kept apart as much in the workroom and museum as they were when they were still lying in the earth. In any properly conducted excavation the finds are kept in their subdivisions, each duly labelled, until they have been fully studied. The reviewer's suggestion shows an ignorance of modern methods of excavation which is no good equipment for a review of a book of this sort. As Horace says:

*Sumite materiam vestris qui scribitis aequam
Viribus, et versate diu, quid ferre recusat
Quid valeant numeri.*

These further explanations have been offered because we can hardly suppose that the reviewer is the only reader to find difficulty in understanding the evidence as set forth in the book. With not a few other kindly remarks he has praised us for lucidity, but, after reading the review, we feel that this is the very last word that he should have applied to it.

R. M. DAWKINS,
J. P. DEOR,
A. J. B. WACE.

¹ *B.S.A.*, xxviii, p. 70.

² *B.S.A.*, xv, p. 38.

³ *The Ring and The Book*, Tertium Quid, l. 1006.

NOTICES OF BOOKS

The Shaft-graves and Beehive-tombs of Mycenae. By SIR ARTHUR EVANS.
Pp. 93; 68 figs. Macmillan, 1929.

Sir Arthur Evans dedicated this statement of his view of the inter-relation between the Shaft-graves and Beehive-tombs of Mycenae to the Archaeological Institute of the German Empire on the occasion of its centenary last year. It gives in a succinct form his now well-known view, opposed mainly to that of Mr. Wace, that the Shaft-graves, with the exception of Grave VI, were not anterior to the Beehive-tombs, but were all made at one time, posterior to them, to contain the royal burials originally placed in the Beehive-tombs but removed from them to the new Shaft-graves for greater safety at some time of stress. This revival of an old theory adumbrated by Prof. Percy Gardner so long ago as 1877, and originally held also independently by Sir Arthur, has been forced upon him as the only possible explanation of the great monumental style of the Beehive-tombs which he compares naturally with the great monumental style of Crete in the Third Middle Minoan period and sees in that its origin. Mr. Wace, holding the hitherto usual view that the Shaft-graves are of the M.M. IIIb-L.M. II period, is equally compelled to place the Beehive-tombs later in an age of great Mycenaean power (L.H. III) following the destruction of Knossos in the fifteenth century B.C. Sir Arthur denies this, and maintains that all the evidence for style points to the earlier date of the Beehive-tombs, and he arranges their development in a reverse order from that deduced by Mr. Wace from their structure, placing the finest tombs at the beginning of the series, while Mr. Wace puts them at the end: for him they are the culmination of a Mycenaean effort, for Sir Arthur Evans the Minoan beginning of a gradual degeneration. The process would be analogous, it might be pointed out, to that of the Egyptian Pyramids, which began magnificently with Zoser, Snefru, Khafu and Khefu, and then gradually tailed off in the ever-weakening work of the Fifth and Sixth Dynasties. This comparison disposes the reviewer to think that there may be more in Sir Arthur's contention than Mr. Wace will allow: for, after all, if *natura nihil facit per saltum*, man does: in Egypt a great genius like Imhotep creates a mighty pyramid with no previous history of development before it: in Greece the Minoan colonial conquerors invent the great *tholos*-tomb, which though there were *tholoi* before it in Crete, does not yet show us any immediate precise predecessor there. Sir Arthur's comparisons of style in details with Minoan work of the great period are impressive, and if we accept his view of the date and development of the *tholoi*, the absence of all traces of burial in them and the presence in the Shaft-graves of the precise grave-goods that should belong to them, would dispose us to accept his theory of the transference. The sixth grave, in which the burials are not huddled and crowded, but show an orderly burial with a secondary interment above it, he would make contemporary with the *tholos*-tombs; the early elements in this tomb run parallel with the earliest in the Shaft-graves. The chieftain, therefore, here interred in the old native cemetery, was the contemporary of the princes whose collected remains were *ex hypothesi* transferred from their original resting-places to be laid in the vaults excavated beside it at a somewhat later date. That the mortal remains of a scion of the conquering race should already have been laid here may have supplied an additional reason for the gathering round of the remains and relics of the representatives of other princely and royal families' (p. 18). It is a most interesting theory, and on those, like the reviewer, who with Sir Arthur maintain the pre-eminence and predominance of Crete in the Aegean world in the M.M. III-L.M. I period, and who are unable to see at Mycenae anything but a transplanted Minoan culture which borrowed but a few elements of art from the confused welter of barbaric pre-Mycenaean mainland styles which we may call 'Helladic,' it is one that impresses itself strongly. But we are not yet at the end of our knowledge of these things.

In matters of detail Sir Arthur certainly shows that the Shaft-graves cannot be derived from the 'small old-graves, or mere shallow pits at that time in use in mainland Greece—Minyan and Helladic—with their stone slabs and contracted skeletons' (p. 10). His comparison of the Sixth Grave, at any rate, with the Minoan pit-graves which are of Egyptian origin, fairly obviously, is pertinent. One thing that he proves is that the grave-stelae are contemporary with the graves, and not, as has sometimes been thought, very late, possibly sub-Mycenaean, and erected as memorials to the dead heroes. He identifies with great probability what has been regarded on one of them as a representation of a leaf-shaped sword as a great one-edged knife (a sort of scaramasax, or in fact a 'hanger,' one might suggest) of a type that is known. His theory is that the stelae were originally set up within the tholoi, and moved to the graves with the burials.

One point that is made is that the supposed partial burning of the bodies is due to the presence of incense-carbon (such fumigation in graves is certain in Crete), and possibly also to that peculiar phenomenon of chemical carbonisation without fire. This, it may be noted, is known elsewhere, as in the case of the body of Tutankhamen, and may explain supposed traces of incineration in Sumerian graves, as at Ur and Zurgul.

H. R. H.

L'art égéen. Par JEAN CHARBONNEAUX. Pp. 60; 64 plates. *Bibliothèque d'Histoire de l'Art.* Paris and Brussels: G. van Oest, 1929.

It is hardly fair to regard this book, which is manifestly designed for the populace of France, as if it claimed international importance. The world that uses picture-books has long had its Aegean wants supplied by Bossert's *Alt-Kreta*, to which these plates only add a few views of Mallia, and are otherwise inferior both in quantity and quality. Bossert is useful (though one may disapprove his methods), because he goes to the original sources for his pictures. Here the reproductions are made from the sources nearest at hand, which are often neither primary nor pure. So the fresco Votary from Knossos (here simply nicknamed 'la Parisienne') has got reversed at some stage of her travels, and the Mycenaean Warrior Vase, which must have been put together for the last generation, is represented by three or four loose shreds. The carved stone vases of Knossos and H. Triada are taken from plaster casts in Paris, though Mr. Charbonneaux must have frequent access to the originals at Herakleion. It is sad, too, to have a Cretan explorer calling the painted stone sarcophagus of H. Triada 'terra-cotta.' And does the French School really think that the stone axe-head of Mallia is M.M. III? In his text the author anticipates an obvious criticism by admitting that his book is not really about Aegean art, but only about Minoan. The insertion of two Pre-Mycenaean Cypriote pots on the last plate but two does not redress the balance, for Cyprus was not Aegean then in any sense. However, there are some useful observations upon the principles of Minoan art, and particularly of architecture, though the political history is rather wild, and is apparently derived, like the pictures, from old sources. It does not matter when an architect publishes his personal opinion that the men of the Tholos Tomb Dynasty at Mycenae had raided Crete, but it is wrong for a scholar to serve up this half-baked theory as a fact in a popular book. Can there be any instance of a barbarous nation suddenly civilising itself by pirating works of art from a cultured neighbour overseas? This confident sketch of prehistoric history is on the first page of the text. On the last the author is inclined to hedge. 'Quant aux Mycéniens, on leur pardonne difficilement d'avoir paralysé sinon détruit la civilisation minoenne.' But he cannot have it both ways. The people who had the Treasury of the Atreus built were not destroying Cretan art.

The Sculpture of the Nike Temple Parapet. By RHYE CARPENTER, with photographs by BERNARD ASUMOLE. Pp. 84; 34 plates, 15 figs. Harvard University Press, 1929. \$2.

The Parapet—more often called the Balustrade—of the Nike temple at Athens has long attracted admiration and study. Many archaeologists in turn have attempted to recover its composition—notably Kekulé, Heberdey, and Dinsmoor. Professor Carpenter has

now come to supplement their work by a minute and appreciative study of the style of the sculpture. He is thus enabled to arrange the figures into six conservative sets, each of which he assigns to a different artist. He contrasts the marvellously skilful technique in marble work of some of the figures with the comparatively commonplace work of others. These six sculptors he merely designates by the letters A to F; but he ventures further in his identification by suggesting a comparison of A with Callimachus and his ever-anxious elaboration. B is identified with less hesitation as Paconius, from the resemblance of his work to the Nike at Olympia, which must be dated 422 B.C. Then E, perhaps the greatest of all with his sweeping lines of drapery, is compared with the author of the original of the Venus Genetrix—who is not, as some have supposed, Alcarnenes. To this E is attributed the famous sandal-binder.

The arguments from style are reinforced by an excellent series of photographs both of whole figures and of details by Professor Ashmole. There will probably be some difference of opinion among archaeologists as to some of Professor Carpenter's conclusions. A great difficulty lies in the question how far design and execution are due to the same hand. But the investigation is a most interesting one, and may well be applied to many other series of architectural sculpture. The method, however, has not proved very successful in the case of the Mausoleum, but might yield interesting results for the Parthenon frieze.

La Statue d'Artemision. By H. G. BEYEN. Pp. 66; 13 plates. The Hague: M. Nijhoff, 1930. 5 guildens.

The discovery of a bronze statue from a Greek wreck off Cape Artemision has attracted wide interest among archaeologists, and several publications with brief descriptions have already been produced. Dr. Beyen here gives a much fuller and more fully illustrated discussion. He first considers the identification of the type. The striding figure with the left arm outstretched and the right drawn back with a weapon in it must be either Zeus or Poseidon. A careful study, made clearer by photographs of the two arms, leads the author to prefer the restoration as Poseidon, since the weapon in the right hand seems to have been a trident rather than a thunderbolt. Dr. Beyen then discusses the style of the statue, and compares it with that of other well-known works of the period after the Persian wars; he finds various resemblances and differences, but does not reach any very definite conclusion, except that the date must be about 465 B.C. An interesting suggestion is that the wrecked ship was coming from the north, perhaps from Thessaly; the cargo may have consisted of statues carried off from Demetrias during Sulla's stay there. In that case the statue may originally have been set up in Thessaly. This publication is welcome as a contribution to the study and appreciation of what is certainly one of the finest bronze statues extant.

Staatliche Museen zu Berlin: Katalog der Antiken Skulpturen. Band III: die griechischen Skulpturen des fünften und vierten Jahrhunderts v. Chr. By CARL BRÜNNEL. Pp. 80; 88 plates, 20 illustrations in the text. Berlin: Hans Schöetz, 1928.

Here are included only what are considered Greek originals, mostly heads and torsos of statues, grave and votive reliefs. Almost all are illustrated in the plates. The reproduction is not very good. The photographs, taken with some parts hidden in shadow, have been so treated as both to dim the outlines and forms and to emphasise the contrast of light and shade. Contour and surface, in some places quite lost, are restored in others by painting round the outline and retouching the interior, so that a new and false version has been imposed upon the original. As evidence of style they are almost useless. In K 35, Plate 45, the figure of the maid behind the seated woman is scarcely visible.

The text, as would be expected, is everywhere adequate. The descriptions of the pieces are careful, precise and full, never superfluous. In particular, all the traces of tools which are preserved on the surface, showing the technique of the artist and the condition in

which he left the work, are mentioned. Discussions of date, style and school are usually confined to a brief verdict. There seems more doubt than is recognised whether all the statues are original. If K 1 and its companion piece decorated a building (they might be Acræteria from a temple) their presence at Pergamum needs some explanation. They may be copies of fifth-century works, not very accurate, like others found there. Perhaps too much trust is given to the evidence of technique, which is sometimes inconclusive, against that of style and quality; or a wrong inference is made from it. For example, mainly from the traces of the running drill visible in the drapery, the author concludes that K 5 is an original of the end of the fifth century. The style, however, resembles that of the figures of the Fates in the East Pediment of the Parthenon (the likeness to those of the balustrade of the temple of Nike is not obvious), the quality is not that of an original, and the natural conclusion is that it is a copy of a work of about 440-430.

Opinions about dates and schools are sure to vary; a few alternatives might be suggested to some of those given. K 4 need not certainly be Attic, and the statement that it came from Asia Minor is too easily disbelieved; a like style of chiton is found on one of the women from the Nereid Monument, besides the Iris from the West Pediment of the Parthenon. K 2 seems not long after 480, K 21 later than mid-fifth century. K 6 and K 7 from the style of the drapery should not be after 430, K 3 might be a decade later. K 30, from the style of the horses' head, seems to belong still to the fifth century, K 25 to be already in the 4th. From the overhanging brows of the eyes, K 8 can be scarcely earlier than the middle of the fourth century; K 34 appears later than the first quarter.

H. W. J.

Der Altar des Artemis-Tempels in Magnesia am Maeander. By A. VON GERKAN. Pp. 35; 10 plates. Berlin: de Gruyter, 1929. 12 m.

Dr. von Gerkan has here assembled all the detailed architectural evidence for the reconstruction of the altar with its colonnade and flight of steps that stood in the neighbourhood of the temple built by Hermogenes (or by his masters) in the late third century B.C. The resultant building is interesting for purposes of comparison with the Pergamon altar.

Corinth; Vol. IV, Part I: Decorated architectural terracottas. By IVA THALLOS-HILL and LINA SHAW KING. Pp. xii + 120; 46 illustrations and 5 plates in colour. Harvard University Press, 1929. 22s. 6d.

This clear summary of the remains of terracotta architectural ornaments, mostly of the archaic period, is of the greatest value to those who are investigating other Corinthian sites which have produced terracottas in adequate numbers. Corinth, the reputed home of architectural terracotta ornament, can now herself throw some further light upon the problem, and the surviving fragments, few though they be, will have an increased importance in view of the comparisons which they make possible with the more elaborate examples from Thermou, Calydon, Syracuse, and Italy, whither Corinthian influences, exports, and perhaps workmen had gone at an early period.

The Greek Tradition in Sculpture. By W. R. AGARD. Pp. 50; 34 illustrations. Baltimore: Johns Hopkins Press, 1930.

This slender sketch of the influence of Greek methods and ideals in the subsequent development of sculpture is not uninteresting. But it hardly rises above the level of a course of elementary lectures on the history of art with special reference to sculpture, and suffers from the defects of compression. It embodies no new research and little that is original in criticism or comment. Nor do the blocks used for the illustrations even faintly do justice to the originals.

Once only does the author emerge from the 'encyclopaedia' style which he has set

himself, and that is when he rightly remarks of Flaxman 'that his English contemporaries shared in both his enthusiasm and his incapacity.'

Only one statement in the book demands serious revision—'Under Constantine Roman sculpture declined rapidly.' In fact Constantinian sculpture marks a vivid if short-lived revival in the art.

The Sculpture and Sculptors of the Greeks. By G. M. A. Richter. Second Edition. Pp. xxvi + 613; 767 figs. New Haven: Yale University Press, and London: Humphrey Milford, 1930. £2 15s.

Animals in Greek Sculpture. By G. M. A. Richter. Pp. xii + 87, with 236 figs. on 60 plates. Oxford: University Press, and London: Humphrey Milford, 1930. £1 10s.

The first of these two books was reviewed on its first appearance in *J.H.S.*, 1929, p. 134. In the second edition which now calls for notice the text remains substantially the same save for some additions and revision, but the form of the book has been entirely changed and enormously improved; the size is smaller, the illustrations are grouped at the end, and an index to them is added. The utility of the work as a handbook to the subject has been greatly enhanced.

The second work has grown out of the chapter devoted to animals in the larger one. Finding the material too extensive for adequate treatment in a single chapter, Miss Richter has developed it into a separate book, with the object of giving a selection of the best Greek plastic representations of animals, and further of indicating the stylistic development in the treatment of any animal, where the material permits. There is room for a book in English on this subject; and Miss Richter's work within its self-imposed limits would be hard to improve. She interprets sculpture in its wider sense, freely citing coins, gems, terracottas, as well as works in stone or bronze; it is perhaps a pity that she did not cover the whole field by including the evidence of painting, which would amplify her stylistic series and provide material for the most obvious omission, the fishy subjects beloved of Hellenistic art. One point of detail should be mentioned; the fore-paw shown for the Lion of Ouidas, fig. 27, is not in marble, but in plaster, a restoration made for Sir C. Newton and long removed.

Die Akropolis. Photographs by WALTER HEGE; Text by GERHART RODENWALDT. Pp. 58; frontispiece, 35 text-figures, 100 plates and one plan. Berlin: Deutscher Kunstverlag, 1930. 28 M.

This attractive publication deserves a warm, if not unqualified, welcome. It is handsomely produced, of convenient size, and not excessively heavy. It consists of one hundred reproductions from photographs (Pla. 1-10, the Acropolis; 12-54, the Parthenon; 58-66, the Propylaea; 68-75, the Nike-temple; 76-104, the Erechtheum; Nos. 11, 55, 67 and 77 are omitted), with an introduction by Professor Rodenwaldt. The text is adorned with thirty-five text-figures, representing typical archaic sculptures in the Acropolis Museum, a small selection of the Parthenon-sculptures in the British Museum, and a few views and reproductions which serve to depict various episodes or phases in the history of the Acropolis since 1850, or to supplement the series of plates.

Herr Hege gives us, in addition to his photographs, a little text, on the dust-cover only, thereby adding a new anxiety to the lives of librarians and other owners of the book: for what he has to say is of real interest. He recounts the difficulties of securing the correct lighting, and the numerous experiments which he made with different plates, colour-screens, lenses, etc., before he obtained a single exposure to his complete satisfaction. It would be a pity to throw into the waste-paper basket this tale of patient effort, with its concluding intimation that the hundred plates reproduced are a selection from over 900 attempts, and its confession that he devoted six months to a preliminary study of the conditions before taking a single picture.

We must certainly congratulate him alike on his patience and his success; and if we feel that his selection of plates is not completely representative we must admit that this, at least in part, is not his fault. Thus, he cannot give us a direct view of the north side of the Parthenon, owing to the presence of the scaffolding employed for the re-erection of its columns. It is true that we have on Pl. 3 taken from high up towards Lycabettus, perhaps as an afterthought, a view of the Acropolis after the removal of the scaffolding, and at this distance new and old work combine harmoniously; and that we have on other Plates the seven columns west of the gap caused by the explosion, and the three to the east of it, but it seems almost a pity that we are not given one view to show the scaffolding, as an historical record. On the other hand, we feel bound to call attention to certain omissions, which detract from the representative nature of the publication: since an illustrated work on the Acropolis should surely aim at comprehensiveness, by trying to depict it at various stages of its history, we should have welcomed more pictures of the archaic pediment-groups, such as the Admission of Herakles, Herakles and the Hydra, and more than merely the head of Athena from the Gigantomachy pediment, to say nothing of some more Kora. For the fifth century we should have expected more of the Elgin Marbles, as the selection of the sculptures from the Parthenon conveys the impression that little of the frieze has survived, except *in situ* at the west end, and the few text-figures in the Introduction give an inadequate idea of the pediment-sculptures and the metopes; and if Carrey's drawing of the east pediment is reproduced, why are we not given that of the west pediment also?

Closer study of the views selected leaves the impression that they are not even fully representative of the Acropolis in its present condition, owing to the tendency to repeat closely similar views, and the neglect of certain important features. For the series illustrating the Propylaea, for example, we are not given a view of the early Propylon, nor of the Pinakotheké, and we should have expected one or more of the North Hall from the east, to make clear the unfinished plan. When we turn to the later history of the approach to the Acropolis, the Beulé Gate is not shown in detail, and the Agrippa Monument appears only once, and then indistinctly and on a small scale. Of the Parthenon, we get no view at all of the south side, and no indication, such as the rock-cutting at the east end, of the pre-Periclean building. For the 'Old Athena Temple' we must perforce be content with a bird's-eye view, admittedly effective, from the Parthenon-scaffolding, and for the Erechtheum we should have welcomed a general view from the south-west, and at least some indication of the interior. To our already long list of *desiderata* we would add the Pelasgian Wall, the rock-cuttings of the Beauronian precinct and the Temple of Rome and Augustus.

We readily admit that some of Herr Hoge's plates are unsurpassable, and that a large proportion of them convey with remarkable success the texture and modelling of the marble-surface, both in architectural and sculptured detail. Too often, however, his sky or his shadows come out (on dark (for instance, Frontispiece, Pls. 9, 64, 79, 85, 91, 92); and in Pl. 17, looking westward along the south wall of the cella of the Parthenon, the columns to the left of the picture appear dark, gigantic and overbearing. Whether this defect is due to the exposure, the printing, or the block-maker we cannot say, but it results in a gross misrepresentation of the normal light in which the buildings on the Acropolis are seen, whereas the lighting seems particularly well-rendered in some of his other plates (e.g. 57, 60, 61, 62). On the other hand, we have nothing but praise for the pictures of the west frieze, for they have avoided alike heavy shadow and an over-dark surface due to the dark patina of the marble; and his large-scale heads of men and horses from this frieze (Pls. 38-43), and above all that of Apollo from the east frieze (Pl. 34), far from hinting at weaknesses of execution, emphasise the supreme skill of the sculptors. Space does not permit detailed comment on individual plates, but 58 is curiously lacking in depth, 69 is so taken that the Pelasgian wall, without being clear itself (and this is our only view of it), cuts off too much of the Nike-temple behind; and 89 does not do justice to the north door of the Erechtheum.

To conclude our criticisms, we would add that the photographer has succumbed too often to the temptation of eccentric points of view. We could have dispensed willingly with Pl. 8, a glimpse of the Parthenon through an archway in the Odeum of Herodes, and Pl. 10, the Propylaea with agaves in the foreground. Pl. 20, a sectional view of the entablature,

ture of the Parthenon, is more suitable to a reference collection of photographs of technical interest; Pl. 21, looking along the bed of the west pediment, with the Cecrops-group dominating the foreground, is merely an ingenious curiosity, and we can find little point or beauty in Pls. 100 and 101, which give details of the ornament of the Erechtheum from an awkward angle. In fact our final impression of the Plates is a feeling of regret that the photographer apparently had not an archaeologist at hand to advise him, during either the choice of subjects for the camera or the selection of plates for publication, for what we are given, in spite of many excellent pictures, will not really satisfy the expert, or give the 'ordinary reader' a truly representative picture of the Acropolis.

It remains to say that Professor Rodenwaldt's contribution seems superlatively good: as an introduction to the history of the Acropolis and its monuments and to the appreciation of their aesthetic qualities, it could scarcely be improved upon. Wisely avoiding controversy, he provides us with an essay in which his full and accurate knowledge is happily blended with his great gifts of sensitive appreciation and exposition—*επισκοπῆς γὰρ ὄντινι πολλῶν*. Only once does he strike a false note, when he says, in reference to the Korai, 'Figuren . . . in denen die spätarchaische ionische Kunst auf attischem Boden ein elegantes Rokoko schuf'! (The exclamation-mark alone is the reviewer's.) Some readers may feel, however, that he has perhaps over-simplified his task, for he gives us not only no controversy, but not even a hint that some of his statements might not meet with general acceptance. He gives us neither notes nor bibliography, and we find no single mention of the name of Penrose or Dörpfeld, nor any hint that the Parthenon and the Erechtheum have been lately published in stately monographs. For example, his account of the three stages in the history of the Nike-temple—begun in 448, completed after a period of abandonment in 421, and surrounded with the Balustrade after the victorious return of Alcibiades—may well be correct, but does not rest on the same sure evidence as the history of the Parthenon. And where shall we find confirmation of the statement that the Balustrade was begun in 408 and finished in 405 (pp. 48-50)?

The publishers inform us, again on the dust-cover, that 'Von diesem Werk wird eine neue Welle der Begeisterung für die Antike über die ganze gebildete Welt ausgehen.' We hope it may, and we agree that the 'gebildete Welt' is getting good value for its money. But its main service will be if it induces its readers to realise for themselves on the spot that the beauties of the Acropolis must be seen in order to be appreciated. And this it is well fitted to perform even if it is found to be more suitable to the drawing-room table than to the scholar's study.

A. M. W.

Études Topographiques sur la Messénie ancienne. By MARTIN NATAF VALMIN. Pp. 233: 42 text-figures and one plan. Lund: C. W. Lindström, 1930.

It is not surprising that Messenia is on the whole one of the least-visited regions of the Greek mainland. The tourist who gets so far seldom sees more of it than is involved by a visit to Ithome and the walls of Messene, and, more rarely, Pylos, before he hastens on to Sparta over the Lacedaemon pass. And actually it does not offer much to appeal to the historian, apart from the obscure problems concerning the Messenian Wars, the setting of the Sphacteria episode, and the walls and city of Messene itself; and purely topographical problems, except those regarding the seven cities mentioned in the *Iliad* and the exact course of the Laconian-Messenian frontier, are of merely local interest, and are apt to resolve themselves into the attempt to reconcile the information given by Strabo, who apparently did not visit Messenia at all, with that in Pausanias, who did not traverse it thoroughly. No Hellenic site has been extensively excavated, except Messene, but interesting results were obtained by Versakis when he dug the little temple of Apollo Korythos at Longa, on the coast north of Corin (Asine); perhaps more might still be found at that site, and there are no doubt others which would well repay excavation. Moreover, the importance of Messenia as a centre of Mycenaean civilisation is now being effectively realised.

In the circumstances, a fresh study of the topography as a whole was well worth making, and no one has better qualifications for the task than M. Valmin. He has systematically

traversed the whole country during the last few years, and his enterprise has been well rewarded, for he has discovered an important prehistoric site, with a small palace and two tholos-tombs, near the railway-station of Vasilikó (close to the head-waters of the Pamisos), the excavation of which he has undertaken with gratifying results (cf. *Bulletin Soc. Royale des Lettres de Lund*, 1926-27, pp. 53 ff.; 1927-28, pp. 171 ff.), as well as several unrecorded sites of Hellenic date; and a fine crop of inscriptions, which he has published with commendable promptness (*op. cit.* 1928-29, pp. 108 ff.). The most interesting of these, a stele with two decrees, inscribed one on each face, incidentally gives us the first documentary proof for the site of Thouria, where it was found. The present work covers the whole of Messenia, only omitting Messene itself in deference to the prior rights of Professor Oikonomos, who has been excavating it; and all the problems of Homeric and classical topography are carefully examined with reference both to the ancient authorities and to the remains now visible above-ground. Several of the author's identification of sites are new, but none appears to be hasty or improbable, and he reminds us that the less certain suggestions can only be confirmed by excavation. Not to multiply instances, we may note that he puts Phéræ at Glamitza instead of at Kalamata, and locates the long-sought shrine of Artemis Limnatis at a fortified site on a strong hill-top which must have protected the ancient route across Taygetus to Sparta south of the Langada pass. (This would have been the shrine common to Spartans and Messenians, who presumably each had their own sanctuary of Limnatis, on lower ground, elsewhere.) Another important suggestion is that Andania should be looked for at a point several miles west of Desylla, the accepted site, for between Bonga and Polichne are extensive ruins, little visited, and at the latter village was found the well-known Mystery-inscription, which is too massive to have been carried far. Desylla may, he thinks, have been Amphela. New sites, for which names are suggested, include Aulon, on a hill-top overlooking the sea not far south of the Neda gorge, Aliartos, at Christiani, and the much-disputed Eranna (? = Arene) in some small remains on the coast opposite the island of Prote. Of the nameless sites, the most striking is the great walled enclosure (possibly prehistoric) called the Kastro of Tsoukaléika, and among minor remains numerous villas and baths of Roman date testify to the civilisation prevalent in the later stages of Messenia's history. The evidence of prehistoric occupation noted by the author is considerable, for, in addition to the tholos-tombs excavated by Koukouliotis and Skias to the north of Messenian Pylæ, and his own excavations mentioned above, he records apparently Early Helladic sherds at Taverna, a tiny bay just east of Mothone, and Mycenaean (with one piece of *matinalerei*) at Kyparissia, a low hill close to Mothone and on the acropolis of Lenktra (south of Kardamyle); and rock-cut tombs of Mycenaean date at Samarina and Karteroi, north-west of Kalamata, and perhaps also at Thouria. He is struck by the rarity of Geometric sherds, and suggests a late continuance of 'Mycenaean' civilisation in some parts of the country as a likely explanation for this phenomenon, which, however, excavation might not confirm.

The text is accompanied by upwards of thirty photographs, which, on the whole, contribute to the value of this admirable publication, though several are on too small a scale to be helpful. There are a few small plans also, and a useful sketch-map which shows all the ancient sites recorded by the author and makes a real contribution to knowledge; and finally we are grateful for a good index and a comprehensive bibliography.

A. M. W.

Nekropolen von Vulci. By F. MESSERSCHMIDT, with A. VON GERKAN. Pp. 163; 39 plates, 97 figs. in the text. (*Jahrbuch d. Arch. Inst.*, Ergänzungsheft XII.) Berlin: W. de Gruyter, 1920.

Inasmuch as two-thirds of the text and all of the plates deal with a single tomb, the title of this book would appear somewhat of a misnomer were it not for the sad tale of lost opportunities revealed by Dr. Messerschmidt's curt summary of past excavations. The reckless greed and destructive haste of the old diggers moved Dennis nearly a century ago to an explosion of wrath; and at a later period, when better things might have been expected, sheer bad luck—the untimely death of excavators or the loss of documents—seems to have dogged the site. Dr. Messerschmidt reviews quickly the general history

of Vulci and then makes most of his book out of the two painted tombs; and of one of these, the Tomba Campanari, nothing remains but the sculptured capital in Florence, on which Ronczewski has written in this year's *Römische Mitteilungen*; the frescoes were destroyed by their discoverer in a misguided attempt to detach them from the wall and are only known from inadequate reproductions, of which the facsimiles in the British Museum are the best known. More important is the Tomba François with its famous frescoes of human sacrifice and its possible historical allusion to the Tarquins; and Dr. Messerschmidt's detailed publication of these paintings, which he assigns to 500 B.C., will be all the more welcome as the originals are almost inaccessible in their present home. Dr. von Gerkan discusses the complicated structure of the tomb and the original position of the painted decoration; he also describes the well-known Ponte della Badia, assigning it to the early first century B.C.

Mélanges d'archéologie anatolienne. By G. DE JEHUASTON, S.J. (*Mélanges de l'Université Saint-Joseph*, tome XIII.) Pp. 332, with 120 plates and 60 illustrations in the text. Beyrouth: Imprimerie catholique, 1928.

The author of this brilliant miscellany treats of ancient tombs, mediæval architecture and Greek epigraphy with equal zest and learning. Of some subjects he gives a sketch, of others a finished picture. The detailed investigation relates chiefly to Angora; the three chapters dealing with its one ancient church (Chap. XII), its Byzantine fortress (Chap. XIII) and some of its inscriptions (Chap. XV) occupy three-fifths of the book. Of the remaining chapters, the elaborate sketches are: Chap. I on the rock-tombs of Amasia, Chap. III on the stairway tunnels of the Pontic region (enumerating twenty-nine instead of Leonhard's twelve), Chap. VI on ancient khans between Amasia and Sivas, Chap. VIII on the Seljuk monuments of Sivas, Chap. IX on the Sultan-khan near Palas. Careful outline sketches are: Chap. II on the rock-tombs of the Pontic region, Chap. IV on its Roman bridges, Chap. VII on the Seljuk monuments of Tokat, Chaps. X, XI on the citadels of Caesarea and Kaledjik, Chap. XIV on some Angora monuments; these brief essays are instructive and suggestive. The text is lavishly illustrated, e.g. that of Chaps. X, XI (9 pp.) by 2 plans and 23 photo-collotypes; there are in all 261 plans or collotype views and 60 figures in the text. Besides the topographic, archaeological and architectural data there is the valuable publication with good facsimiles of 68 Angora inscriptions, 29 of them new. From the 39 already known, here learnedly republished, some important conclusions emerge; for instance, from the revision of *C.I.G.* 8794-8795, it appears that, as Grégoire thought, they relate to Michael III, and that the inscriptions Nos. 56, 57 bear the names of that emperor and of the future Basil I. The printing is excellent; the only slip noticed is in the reference to Ramsay of the note on p. 25, which should read '*J.H.S.* 1880, p. 181' instead of '1888, p. 188.'

W. H. B.

The Metropolitan Museum of Art, New York. Jewelry. The Art of the Goldsmith in Classical Times, as Illustrated in the Museum Collection. By CHRISTINA ALEXANDER. Pp. 50; 4 colour plates + 129 figs. New York, 1928.

This little work is intended as a guide for the use of visitors to the gallery of classical jewellery, and does not make any further claims. There is a brief general introduction, and short prefaces are attached to the various classes—necklaces, earrings, bracelets, fibulae, rings, etc.—into which the jewellery is divided. The general arrangement follows that of the British Museum catalogue. Most classes of ancient jewellery are represented in the collection, but no new types of any importance appear. It should be borne in mind that it is often very difficult to feel sure of the authenticity of pieces of jewellery purporting to be ancient. The illustrations are good, and the colour plates enable the student to realise something of the effect of jewellery, which is so largely lost in a mere photograph. The Cesnola collection from Cyprus naturally forms an important part of the New York ancient jewellery.

F. H. M.

Neue Deutsche Ausgrabungen. Edited by G. RODEWALDT. (*Deutschum und Ausland*). Vols. 23 and 24. Pp. xi + 277. Pl. 37 + 27 figs. and 3 plans. Münster in Westfalen: Aschendorffsche Verlagbuchhandlung, 1930.

This book, the work of many collaborators, deals with numerous fields of excavation—in Greece, Asia Minor, Palestine, Mesopotamia, Egypt and Germany; only a comparatively small portion of it directly concerns the readers of this *Journal*. Briefly described, it gives an account of German archaeological activity since the war, supported largely by the funds of the *Notgemeinschaft der Deutschen Wissenschaft*. The book arouses at once feelings of regret and hope. Regret, that excavations on the scale of those at Olympia, Pergamon and Troy seem impossible in the near future, and that German archaeology must at present content itself with drawing up on paper a scheme for an ideal excavation on a large scale, such as that sketched in this book for Knidos by Dr. Armin von Gerkan; hope, inasmuch as the spirit which produced the great German pre-war excavations is still alive, and has already resulted in some not unimportant additions to archaeological knowledge.

To turn to the chapters which concern the progress of Hellenic studies. Dr. Rodewaldt gives an introductory sketch of archaeological discovery, chiefly German, since the Renaissance; Dr. von Gerkan follows with a reasoned plan for the excavation of Knidos on a large scale; Dr. Karo deals with Tiryns, where the latest excavations show that the cyclopean walls and frescoed palace cannot be dated much before 1200 B.C. Thus the views of those who held that the Mycenaean civilisation on the mainland of Greece was the offspring and heir of the great Minoan civilisation of Crete find confirmation. Dr. Buschor describes the progress of the excavations of the Heraeum of Samos; a fairly clear view of the ground-plan of this giant Ionic dipteral temple, begun towards the end of the sixth century, has been obtained, but the evidence tends to show that it was never completed. It had both predecessors and a successor. The altars in front of the temple and its precinct have yielded some interesting archaic statues and bronzes; one statue is signed by a sculptor Gaeleceus. Dr. Welter describes the excavations in Aegina resumed in 1924; the results mainly reveal the development of settlements of prehistoric times from the first half of the third millennium B.C., in particular the history of the pottery, which illustrates the commercial relations between Aegina and the mainland and islands (including Crete) during the third and second millennia B.C. In the early historic period Aegina is shown to have been an intermediary between the East and the mainland of Greece. Dr. Brückner deals with the further exploration of the Kerameikos district of Athens since 1926; this has determined the form of the Pompeion from which the great processions started. Dr. Wiegand traces the history of the excavations at Pergamon, and their resumption since 1927. The principal results have been the discovery of large granaries on the highest part of the acropolis, belonging to the period of Attalus I, and presumably erected to provide a reserve of food in case of a siege by Philip V of Macedon; the determination of the site of a temple of Asclepius and its adjacent buildings, lying in a valley west of the city and dating from the second century after Christ. An inscription gives a letter of the Proconsul P. Servilius Isauricus to the Pergamenes dealing with the restoration of the right of asylum. Dr. Schade describes excavations at Angora and Aezani. The principal work was at Aezani, where the temple of Zeus of about A.D. 150 is comparatively well preserved. A giant akroterion from the west gable was found, sculptured with a woman's head surrounded with leaf and tendril decoration. A small shrine of Cybele in the neighbourhood of Aezani was also explored, and many terracotta figurines of the goddess, belonging to the late Hellenistic period, recovered. Finally, Dr. Joseph Keil traces the history of excavation at Ephesus and the continuation since 1926. The principal discoveries since that date have been the site of the early Ionian city besieged by Croesus; a sanctuary of the Mother Goddess, on a hill near the Artemision, with inscriptions and votive reliefs; a Nymphaeum belonging to the Imperial period, and a magnificent gymnasium, built by P. Vedius Antoninus in the reign of Antoninus Pius. Further, a great mausoleum on a site associated with the legend of the Seven Sleepers has been uncovered, and the Church of St. John, built by Justinian, and its catacombs have been explored. Dr. Keil points out how much still remains to be done.

The remaining chapters do not call for notice here, though it may be mentioned that the Bronze Age settlement at Buch, N.E. of Berlin, has yielded house-plans of the megaron

type, and thus again raises the question of a north European origin of the early Greek house and temple.

F. H. M.

Graecia Antiqua: Maps and Plans to Illustrate Pausanias's Description of Greece. Compiled by Sir JAMES FRASER, with explanatory text by A. W. VAN BUREN. Pp. 161 + 12; 70 maps. London: Macmillan & Co., 1930. 25s.

I have known at least two people who cut the maps out of Fraser's *Pausanias* and carried them on their travels round Greece. They found, however, that they profited less by this destructive operation than they had anticipated, firstly because the maps were not up to date, and secondly because a number of sites were represented by their chief buildings only. Perhaps these two points are really one: when the commentary on Pausanias was written in 1898, only the temple at Sounion had been investigated, not the temenos. In any case, the question arises whether it is worth while republishing separately maps made over thirty years ago. Much of Sir James Fraser's text is immortal, but maps of sites are by nature short-lived, and the last three decades have been marked by discoveries of unrivalled importance. In the few cases where Dr. van Buren has inserted an up-to-date map—Corinth, Elis, Delphi, and, to a certain extent, Sparta—we realise how invaluable a book of this kind could be. At Sparta, the fact that no map of the Orthia site could logically be included will cause some unguided student an anxious half-hour.

Dr. van Buren's text is arranged (i) to give a summary of the information relevant to each map and (ii) to indicate briefly with references what has been done since the *Commentary* appeared. Here one may perhaps complain that the bibliography is too scanty: for instance, in the case of the Amphiarcon, only one of the articles in *Ep. 'Apx.* is quoted, and the reference incorrectly given. Moreover, the literature on the temples of the Acropolis should have included some mention of Prof. Buschor's contributions to *Abh. Mit.* But, on the whole, Dr. Van Buren has succeeded in making his descriptions both useful and readable, and in keeping something of the atmosphere of both the authors with whom he is concerned.

W. L.

Κόρινθος. A Guide to the excavations and museum of Ancient Corinth. By RHYE CARPENTER. Pp. 84; 11 figs. and maps: one folding plan. Meçon, France: Protat Frères, 1927.

The aims of a guide-book should be two: to make the subject clear and to make it attractive. Not all succeed in the first, few in the second: Dr. Rhys Carpenter's guide to Corinth is, however, doubly successful. It is literary, comprehensive, well equipped with maps and illustrations, and slim enough to go into a man's pocket or a woman's handbag.

The site is not an easy one to describe and must have been a difficult one to excavate. Fortunately, the results were repaying, for, although much of what is preserved is of Roman date, many of the Roman buildings have their superstructures intact, and there are a number of Greek remains of peculiar interest: the Market, the Sacred Spring and the Omenial Shrine.

About a dozen pages are devoted to an account of the museum, but these cannot fail to be disappointing, since they deal with sculpture only: the omission of the pottery was imposed by the fact of its being as yet unpublished.

A picturesque sketch of Corinth and its history, with a vignette of the mediæval town on the Acrocorinth, lacks just one touch that would give it perspective. We are told that the American School has explored numerous prehistoric sites in the district, but not that Corinth itself was inhabited in Neolithic times and in the Bronze Age. Surely this piece of information is as essential as it is interesting?

Corinth Vol. IV, Pt. II Terracotta Lamps. By OSCAR BRONNER. Pp. xx + 239, with 210 text-figures and 33 plates. Cambridge, Massachusetts: Harvard University Press, 1930. \$5.

Students of Greek and Roman antiquities will welcome this abundantly illustrated and handsomely produced volume. It embodies the results of a careful study of the lamps discovered at Corinth during excavations from 1896 to and including the year 1928, and is especially valuable from the standpoint of developmental chronology. The author is to be congratulated on the issue of an investigation to which he has brought a wide knowledge of recent and contemporary published material.

In a well-documented introduction Mr. Bronner discusses the development and chronology of lamps, the technique of their manufacture and the evidence which they bear of the various phases of commercial relationship within the Empire. He rightly insists upon their value for dating purposes. Incidentally, it may be noted that the importation of Italian lamps to the Aegean in the late first century B.C. and early first century A.D. throws an interesting light upon Italian commercial activity during this period; an activity of which we already have abundant evidence in historical reference and archaeological 'find.'

In this section the use of the small hole—the so-called 'air-hole' or 'breather'—so frequently found on the neck or *discus* of Roman lamps is fully discussed. Mr. Bronner shows that this feature is also a characteristic of some Hellenistic lamps, and brings forward evidence which indicates that in some examples it functioned as an oil-hole.

On the vexed question of the 'Cothon,' Mr. Bronner is thoroughly sceptical of the theory that this vase-form was used as a lamp. He reminds us that the lamp-type is perfectly well known for the period at which Cothons were in use, and that lamps which have any resemblance to Cothons do not occur until long after the Cothon has disappeared. Although Cothons sometimes have suspension-holes, it is improbable that they ever served as illuminators; their function more likely was akin to that of the perfume-vessels found on Attic vase-paintings (e.g. Buschor, *Altische Lekythen*, Figs. 1, 10).

The early types of lamps do not lend themselves to such close dating as do those of the Imperial period, and Mr. Bronner wisely allows for overlap. It is curious that the excavations have produced no lamps earlier than 600 B.C.; noteworthy also that the fourth century B.C. seems to have passed away without witnessing the appearance of a single new type. Some remarks (pp. 37 ff.) on the superiority of the Attic clay to the Corinthian are worth remembering in any general survey of early ceramics.

It is interesting to note that Roman lamps with broad, straight-ended nozzles, Loeschcke's Haltern types 33 and 34, have not been found in this excavation notwithstanding the practical certainty that they were developed from a Hellenistic prototype (Bronner's Type XVI). Now, this type of lamp appears to be a 'fixed' product of Augustan sites in the west (cf. Loeschcke, *Haltern*, Pl. XI, 33, 34; Hagen, *Vetera, Bonn. Jahrb.* 122, Pl. LVII, 4; Trier, Augustan grave-group, No. 504). The absence of this general type from the Corinth excavations may be accidental. On the other hand, its absence may indicate a somewhat late date, i.e. late Augustan, for the beginning of the importation of the Corinth volute lamps.

The lamp with a decorative attachment above the handle (Bronner's Type XXI) is, so far as the western provinces of the Empire are concerned, chiefly pre-Claudian in date. It occurs in the Augustan period at Haltern (Loeschcke's Type 36) and in the Augustan Pottery at Xanten (*Bonn. Jahrb.* 122, Pl. LI, 2). Rarely it has been found in the Claudian period, as at Richborough, where it is regarded as a 'survival.'

Of particular interest from a chronological standpoint are the voluted lamps with angular or rounded nozzles (Bronner's Types XXII, XXIII). Both types were probably evolved from Hellenistic originals and both appear to be broadly contemporary in origin. Mr. Bronner has shown that one variety of the volute lamp with rounded nozzle, viz. that with the decorative attachment above the handle, is early (p. 74), and this conclusion is supported by its occurrence in the Augustan period at Haltern and Xanten (see above).

But, although contemporary in origin, the relative frequency of these two types varies greatly, in the west. Whilst the volute lamp with angular nozzle is particularly characteristic of the period Augustus-Claudius, that with the rounded nozzle is more especially

frequent during the period Claudius-Nero. But both types continued down into the late first century when volute lamps with triangular nozzles are forthcoming at Faimingen (*O.R.L.* No. 66e). In some localities the type with angular nozzle occurs as late as the Antonine period, as at Regensburg. The rarity of volute lamps with rounded nozzles in the excavations at Corinth is in striking contrast to their comparative frequency on Claudian and Neronian sites in the western provinces, e.g. Hofheim L. Trier grave-groups of this period, Nos. 42, 797, etc., Colchester and London. Does this difference indicate a variation in the trend of Italian exportation or, as is much more probable, the establishment of centres of manufacture in certain western localities, e.g., Lyons and Xanten?

That exportation was not equally distributed throughout the Empire is clearly shown by the comparative rarity of the 'Firma-lampen' at Corinth, whereas in the west they are probably the most common type of lamp of the late first and early second centuries. The Italian lamp of the FORTIS class was undoubtedly imitated and manufactured in the western provinces (see *Y Gymnastodor*, vol. XLI, *Holt*, p. 175, and *Loeschcke, Lampen aus Vindonissa*, p. 251 foll.). The rebirth of the lamp-industry in Greece (Broneer, p. 88) would appear to account sufficiently for the rarity of the Firma-lampen in Corinth.

Mr. Broneer's chronology of the lamps of the early Empire would have been firmer and fuller had he made direct reference to such dated sites as Haltern, Xanten and Hofheim.

Of much value is the author's treatment of the large class of lamps included under his Type XXVII. They are important not only for their Greek and Hellenized Latin inscriptions, but also because they represent the return of the lamp industry to Greece in the second century of our era.

A comparative study of the decoration of the Roman relief lamp and of contemporary *Sigillata* demonstrates a common artistic inspiration and suggests a certain degree of inter-influence. Many of the figure-subjects depicted by the lamp-maker find close counterparts in the work of the sigillata potter. A few parallel examples may be given:—

LAMPS.	SIGILLATA.
Satyr with wine-skin	Arretine ware.
Maenads	Arretine and South Gaulish ware.
Lion attacking a snail	Arretine ware; also South Gaulish ware, in the work of the pre-Flavian potter Masculus.
Stork at toilet	S.-G. ware; pre-Flavian form 30 at Richborough.
Stork with uplifted bill	S.-G. ware; in the work of the pre-Flavian potter Liliurus.
Panther and vine tree	S.-G. ware; in the work of the pre-Flavian potter Masculus.
Minerva (early type)	S.-G. ware; Nero-Flavian period.
Sphinx	S.-G. ware; Nero-Flavian period.
Rabbit eating grapes	S.-G. ware; Flavian period.
Heracles and Hydra	S.-G. ware; Flavian period.
Gladiator to L. right arm extended	S.-G. ware; Nero-Flavian period.
Combat of Gladiators—one kneeling and appealing for mercy	S.-G. ware; Flavian period.
Dog attacking boar	S.-G. ware; Flavian period.

Close parallel dating is not possible; generally, but by no means invariably, specific figure-types appear earlier on lamps than on Sigillata.

On p. 24 it is stated that 'the exquisite Arretine ware was imported from Italy as late as the middle of the first century.' It may be doubted whether the sigillata industry in Italy produced any ware of an exquisite character at so late a date, and much more whether it was exported. At this time the Italian potteries which produced fabric of the Arretine type were decadent and dying; their wares had already been displaced in the western provinces by the products of the new potteries of South Gaul (see *Archæologia*, LXXVIII, p. 73 fol.), and were in the process of being replaced in Italy itself and even in Greece (see *Oxé in Ath. Mitt.*, LII, p. 216, Abb. 2, fig. 25) by this provincial fabric.

The usefulness of the profiles of wheel-made lamps (Fig. 14) would have been increased

by an explanatory text specifying each type. A similar remark may be applied to Fig. 34, which illustrates the rim-profiles of Roman lamps.

This work will undoubtedly prove of much service to the excavator of Greek and Roman sites, and should be the subject of frequent reference and consultation.

T. D. P.

Greek Physical Culture. By CLARENCE FORBES. Pp. 300. New York and London: The Century Co., 1929. \$2.25.

The greater part of this work, and by far its most valuable part, deals with the history of the Ephebia at Athens and throughout the Greek world. The author has carefully collected the epigraphic evidence and arranged it clearly.

As regards physical education in the fifth century and earlier, his account is very incomplete owing to the neglect of the evidence of vases, and to the artificial separation of athletics and gymnastics. Though it is true that professional athletics helped to ruin physical culture in Greece, it is equally true that it was athletic competition alone that gave vitality to the system of physical culture, competition not so much in the Great Games as in countless local festivals and even in the Schools. And no account of physical culture can afford to neglect the evidence of these competitions. The author does not even mention the competitions between teams of ball-players at Sparta, described in *H.S.A.*, though he does mention the officials named in these inscriptions. His account of the attitude of the Athenians towards athletics may be true of Plato's time, but is hardly true of an earlier date. Nor can we agree with him that Solon cut down the rewards of victories in the public games. When Solon offered 500 drachmae to an Olympic victor and 100 to a victor in other games, he certainly meant to encourage athletics. Five hundred drachmae, equivalent to at least two years' wages, was no mean reward.

In spite of these defects the book will be valuable to the student of the Ephebia, and its utility is enhanced by a good index and a full bibliography.

La Danse Grecque. By LOUIS SÉCHAN. Pp. 309; 19 plates, 71 figs. Paris: E. de Boccard, 1930. 50 fr.

M. Séchan, Professor of Greek at Montpellier, is an enthusiast for the dance, and for the reform of the modern dance, and his enthusiasm, though it sometimes leads to exaggeration, has produced a truly fascinating book.

The dance had a unique importance in the religion and life of the Greeks. It was closely linked with poetry and music, and was generally performed by choirs of boys and girls in the service of some deity. From an examination of the positions and movements represented in the vases, the writer concludes that the Greek dance exercised every part of the body, and in particular that there was far greater freedom in the use of the arms and hands than in the orthodox modern ballet. But he is less concerned with the details of movement than with the spirit of the dance. Adopting the classification of Plato in the *Leysis*, he deals first with the military or gymnastic dance, imitating the movements of war or of athletics. He then passes to the religious dance, the *hupêron*, the truest expression of the Greek spirit, the Apolline dance, representing as Plato describes it the state of a joyous and peaceful spirit, the proper dance for the service of the gods. Another chapter deals with the Orgiastic dance familiar to us from the beautiful vase-drawings of dancing maenads. But such dances the author regards as really exotic. Other chapters are devoted to the dance of the theatre and *la danse priée*.

The book concludes with three chapters on the reform of the modern dance, one on the eurythmic system of Dalcroze, another on a Socratic dialogue by Paul Valéry entitled *L'Âme et la Danse*, and the last on the great dancer Isadora Duncan. In these chapters he shows the influence of Hellenism on these reformers in their revolt against the formality and virtuosity of the modern dance. Particularly charming is the passage quoted from Isadora Duncan's *Ma Vie*, in which she tells of the hours spent in loving study of the masterpieces of Greek art, not in order to copy their attitudes, but to try to discover the

secret of their beauty. 'De leur mystère,' she says, 'est sortie ma danse; non pas grecque, non pas antique, mais bien l'expression de mon âme eurythmique par la beauté.'

The book is copiously illustrated and the illustrations are well chosen; but unfortunately many of them, especially the line drawings, are very poor. One more grumble: there is no index.

E. N. O.

Greek Ostraca in the Bodleian Library at Oxford and various other Collections. Edited by JOHN GAVIS TAIT. Vol. I. Pp. ix + 181. London: Egyptian Exploration Society, 1930.

This long-awaited and indispensable work brings together conveniently in one volume the ostraca scattered among various libraries and museums, the most important of which, after the Bodleian, are the Ashmolean Museum, the Cambridge University Library and the Flinders Petrie collection at University College, London. A second volume will contain the Bodleian ostraca of the Roman and Byzantine periods and will be furnished with indexes to the whole work.

Inscriptiones Graecae ad illustrandas Dialectos selectae. Ed. F. SOLMSEN: editionem quartam curavit E. FRANKEL. Pp. viii + 114. Leipzig: Teubner, 1930.

The demand for a fourth edition of Solmsen's *Inscriptiones Graecae* only twenty-seven years after its first publication bears eloquent testimony to its value. The publishers have been fortunate in the choice of an editor, who, himself a pupil and friend of Solmsen as well as an expert in dialectology, has conserved all that was of value in the work while enriching it by references to recent discoveries and discussions. One inscription contained in the third edition has been omitted, but eleven new ones have been added, bringing the total number up to sixty-seven. Among these accessions are some well-known texts, such as the frontier-delimitation between Orchomenus and Methydrium (2), the Mantinean judgment (5), the treaty between Cnossus and Tyllissus mediated by Argos (27), the new Locrisian *requis* regulating the distribution of land (46), the inscription of Cleobis and Biton (47; Homolle's final reading in *C.B. Acad. Inscr.* 1924, 140 ff. has apparently been overlooked) and the Cyrenaean 'Decretals' (39), the commentary on which is especially full and valuable. The book merits unqualified commendation.

M. N. T.

Inscriptions de Délos: Comptes des Hiéropes (Nos. 372-498), Lois ou Règlements, Contrats d'Entreprises et Doyis (Nos. 499-509). By FELIX DURRBACH. Pp. viii + 351. Paris: H. Champion, 1929.

The year 1926 witnessed the publication of Durrbach's *Inscriptions de Délos: Comptes des Hiéropes* (Nos. 290-371), which was duly noticed in this *Journal* (xlvii. 160). With commendable promptitude a further volume has appeared, carrying the temple-accounts down to the close of the period of Delian independence (314-166 B.C.) and adding a group of eleven laws, contracts and specifications dating from the same period, including the well-known third-century law regulating the sale of wood and charcoal (*Dittenb. Syll.*³ 973). The most important single document in the collection is No. 442, the splendidly preserved record of the *lypomenoi* in the archonship of Demares (170 B.C.), the text of which alone occupies 28 pages. It is unnecessary to repeat here what was said in the above-cited review about the scope and value of the work or about its characteristic merits: though this volume is almost twice as large as its predecessor, Professor Durrbach has carried out his exacting task with the competence and the accuracy which he has accustomed us to take for granted in his work. The volume closes with a useful synoptical table of the Delian magistrates from 314 to 166 B.C. and a list of addenda and corrigenda to the two volumes, due mainly to the acumen and industry of M. Laeroix. We are glad to learn from the Preface that a further volume is in prospect, which will contain the administrative documents of the second period of Athenian domination.

Where so much is given, it may seem ungracious to ask for more; but ease and brevity of reference would be greatly increased if the volumes of the series were numbered, so that we might use the title *Inscriptiones de Dilos*, ii, instead of the somewhat cumbersome one which stands at the head of this notice.

M. N. T.

Griechische Götter im alten Rom. By FRANZ ALTHEIM. Giessen, 1930. (*R.G.V.F.*, Bd. xiii, Heft 1.) Pp. 216. Giessen: A. Töpelmann, 1930. 12.50 m.

This work cannot be fully treated here, since it deals primarily with Roman, not Greek cult; the present reviewer has handled it at greater length in a recent number of *Quoniam*. It is, however, also of interest to those who study the expansion of Hellenic civilisation to other parts of the ancient world, and in general the interrelations of the various cultures of that time. Briefly, Altheim's thesis is that of the Roman gods, even those of the oldest strata, the *di indigetes* and the supposedly Italian *di novensides*, a larger number than is generally imagined are really Greek, derived through the intermediary of Etruria. The influence of the latter people he, following Schmalz, is perhaps disposed to rate too highly; but that it existed in, of course, certain. By way of illustrating, rather than proving his case, he selects for examination in detail the cults of the Castores and Iuturna, Mercury, Diana and Volcanus, i.e. two *indigetes* and three of the older *novensides*.

That Castor and Pollux are ultimately Greek no one doubts; Altheim breaks new ground in putting forward a strong case for regarding their association with Iuturna as original, not accidental. Her name he takes to be a hybrid, from the root *dio-* (there is some evidence that the original form is *Diuturna*) plus the Etruscan suffixes *var* and *na*; hence 'she who is of the family or clan of Iuppiter.' In other words, she is an Italian Helen, appropriately associated with the Italianised Dioskuroi. The trio reached Rome through Etruria; Castor and Pollux lost their title of sons of Iuppiter (or *Tinia*) in Rome, which recognised no affiliations of gods; the meaning of Iuturna's name was not perceived, and in time an idea grew up that she was 'the helpful' goddess (as if from *iuuare*).

The name Mercurius Altheim would not derive from *merca*, but connects with the Falterian *titos merca*, which he interprets as meaning 'to the genius of *Mercurus,' the last word being in his opinion Etruscan and signifying the god of a *gens* called Merca or Merconia. In this section his arguments seem rather weaker and more far-fetched than in the first.

Diana of Aricia he would connect with Artemis, and especially with three local forms of Artemis which are traditionally associated with the Tauric cult and the legend of Orestes. Despite much ingenuity, the reviewer considers this the weakest section of the whole book.

Volcanus is to be connected closely with the *vel* of the Piacenza bronze liver, to be completed as *velxans* (p. 173); conceivably also with the Cretan *Φαλγανός*, though this is so uncertain that Altheim prefers to leave it out of count (p. 206). In any case he is nothing but an Etruscansed Hephaistos. The evidence here, though not negligible, is rather too purely linguistic; here and elsewhere not quite enough care has been taken, in discussing Roman cult, to differentiate the earlier from the later and admittedly Hellenised ritual.

Altogether, this is a work to be taken into account by all who try to explore the complicated questions relating to the connexion of Greek with Italian civilisation and of both with the Etruscans.

H. J. B.

From Orpheus to Paul: a History of Orphism. By VITTORIO D. MACCHIORO. Pp. 262, 12 illustrations. London: Constable & Co., Ltd., 1930. 12s. 6d.

It is hard to take this book seriously enough to write a review of it. It purports to give a history of Orphism. Under this name are included every rite and belief that ever was or called itself Orphic; everything Pythagorean; everything in any way Dionysiac; and much which is οὐδὲν πρὸς Διόνυσον. The resulting picture is confronted with certain phenomena observed among other peoples than those of classical antiquity, mostly

uncivilised. To Macchiore, it would seem, all antiquity is on one plane, and all savages and barbarians are alike; hence anything from Onomakritos to Proclus can be compared with anything from outside Europe, be its origin North America, Central Africa, or Tierra del Fuego. This being so, it really is of no consequence that, following and outdoing the extremist theories of earlier writers, he takes the Eleusinian Mysteries to have become Orphic somewhere about the time of Peisistratos, makes St. Paul an Orphic initiate (apparently no mystery-religions except Orphism flourished in his day), and holds that Greek Christianity is mostly Orphism.

The book, as the preface explains, 'contains the Schermerhorn Lectures in Religion' delivered before the University of Columbia, an institution which deserves something better. It is in very respectable English, perhaps due to certain American friends of the author who helped him to revise it. When next they revise a book dealing with anything classical, they will do well to have a Greek dictionary at hand. This work swarms with distorted Greek words.

To give a list of errors in detail would be waste of space; it is shorter to notice the one merit which the reviewer can find, a discussion of ecstasy and kindred phenomena in chap. iv which, while not new, is not without interest.

H. J. R.

Bilderatlas zur Religionsgeschichte, herausgegeben von Dr. HANS HAAS. 15. Lieferung: Die Religion des Mithra. By Prof. D. Dr. J. LEIPOLDT. Pp. xviii + 23 plates (30 illustrations). Leipzig: Scholl, 1930. 6.80 m.

This is a worthy addition to this excellent series. Dr. Leipoldt is no mere excerptor of Cumont, but has himself a profound knowledge of Mithraism and has been at great pains to acquaint himself with the surviving monuments of that interesting cult. Hence his well-chosen illustrations, while of necessity including much that is familiar, give us several important works of Mithraic art which were not available when Cumont wrote his *magnum opus*. The introductory text also, brief though it is, contains several interesting suggestions and may serve as a starting-point for further discussion of the subject. The work has independent value, and is not merely a cheaper substitute for the existing books, but a supplement to them which the serious student of Mithraism will not willingly be without.

H. J. R.

The Jurisprudence of the Jewish Courts in Egypt: legal administration by the Jews under the early Roman Empire as described by Philo Judaeus. By ERWIN R. GOODENOUGH. Pp. ix + 268. New Haven: Yale University Press, and London: Humphrey Milford, 1929. 13s. 6d.

Dr. Goodenough has made a careful analysis of Philo's *De specialibus legibus* with the view of discovering the sources from which the legal system described in the book was derived, and concludes that it represents the practice of the Jewish courts in Alexandria at the time when it was written: it departs from the Mosaic code, especially on points of common law, and borrows freely from both Greece and Rome. His argument, as against the view that Philo was engaged merely in composing a theoretical treatise, is certainly weighty; but it may be questioned whether he does not go rather too far in assuming that the book is virtually a summary of actual cases and decisions. The Jewish community in Alexandria was fighting for its special status against the Greeks; and Philo, when writing his exposition of Jewish law, in all probability had in mind the importance of producing a favourable impression on the Emperor and his advisers at Rome, and so would be inclined to emphasise, if not to exaggerate, any points where the Jewish courts could conform with the Roman code. Philo's intention, in other words, was practical, to show how Jewish law could be administered in harmony with Roman principles; but there is no evidence that the Jewish courts at Alexandria practised what Philo preached. Even if we do not agree with Dr. Goodenough on this point, however, his study of the documents is of substantial value and throws much light on the trend of Alexandrian Judaism in the first century.

J. G. M.

The Decline of the West. By OSWALD SPENGLER. Vol. II: pp. xi + 507 + xxxii. London: George Allen and Unwin, Ltd. 21s.

The general criticism of the first volume of this book, made by another reviewer, in vol. xlvii of the *Journal* (p. 287), applies equally to the second: it is of little value to the Hellenic student to disinter particular statements relating to his subject from a ruin of fragments of history belonging to all periods and all countries, when he finds that the statements consist either in unproved assertions or in distortions of evidence. I will take as examples the first and last of many passages noted during the reading of the book: at the beginning of the chapter on 'Cities and peoples,' Spengler says, 'It is axiomatic that the Minoan culture is part of the Egyptian,' without any reference to authority or attempt at support, beyond a remark to the effect that all the Egyptian evidence of the connexion has unfortunately vanished; which is not very helpful, except as giving a clear field for the invention of an imaginary Egyptian culture from which the Minoan can be derived. On p. 495 he says that Egypt provided the Roman Emperors with an inexhaustible source of gold, which is frankly absurd: there was very little gold in Egypt in the time of the Empire, and, if there was any movement of gold between Egypt and Rome, it was certainly into Egypt: it is true that Egypt was a source of revenue to the Emperors, but the revenue mainly came in corn, whereas the whole point of Spengler's argument rests on its having been in bullion.

J. G. M.

Seleucid-Parthian Studies. By W. W. TARN. From the *Proceedings of the British Academy*, vol. xvi. Pp. 33. London: Humphrey Milford, 1930. 2s. 6d.

The first two of the four articles included in this pamphlet are reviews of the evidence provided by Chinese historians as to the movements of the nomad peoples of Central Asia in the second century B.C. and a correlation of it with that derived from Greek accounts of the invasions of Bactria and Parthia by some of these nomads: several points of contact are found, which are of value as helping to explain the course of events in those kingdoms and incidentally the general situation in Western Asia about the beginning of the first century. The third study is on a question of geographical nomenclature, which is more narrowly specialist. The fourth, however, is of interest to all students of the history of the Hellenistic kingdoms, as it shows reason for believing that the Seleucid system of administration in Asia was based on a triple subdivision, like the Ptolemaic in Egypt: if this is correct, it strengthens the case for the doctrine that the Seleucid and Ptolemaic arrangement of government started from a common model, which was adapted to suit the different needs of the peoples in the two kingdoms.

J. G. M.

Le dialecte laconien. By E. BOURGUET. Pp. 170. Paris: Champion, 1927.

A useful account of the dialect of Laconia treated historically. The inscriptions and literary texts are used to illustrate the development of the language from the earliest known times to the Laconian revival of the second century A.D.—a revival which Bourguet finds to be more genuine, more thoroughly Laconian than is commonly supposed. One chapter carries the history still further, to the Teanionian dialect of Modern Greek, which bears marks of its specifically Laconian ancestry. The Laconian colonies are not included in this survey.

My Recollections, 1848-1914. By ULRICH VON WILAMOWITZ-MÖLLENDORF. Translated by G. C. Richards. Pp. 412; 3 plates. London: Chatto and Windus, 1930.

English Hellenists who have not already read Wilamowitz's *Erinnerungen* will do well to read this excellent translation. The author's native land is Kujawia, now part of Poland, and the early pages of the book are full of interesting descriptions of this corner of Posen and resentment at its separation from the German Empire, which had much improved it.

Of his own childhood and family he gives us a lively picture; greater interest still attaches to his school-days at Pforta in the 'sixties, where Latin and mathematics were the backbone of the education given. Though full of admiration for his old school, Willamowitz admits that Greek was poorly taught and observation of nature neglected. His student days at Bonn and Berlin were followed by a year's service in the Franco-Prussian War. After travelling in Italy and Greece he became Privatdozent in Berlin and professor successively in Greifswald, Göttingen and Berlin. In these chapters we see the man at work, not so much in his writings, though there are references to a few of these, as in his teaching and his relations with students and colleagues. Mommsen, Harnack and other famous scholars appear. There is little about his private life, save a few references to his wife, Mommsen's eldest daughter, of whom we would gladly have heard more. The nominal limit of the *Recollections* is 1914; one is inclined to wish that the book had been written before that year. Not that it shows anger against the English, of whom he speaks cordially, but the book is full of the melancholy of an old man who has seen the downfall of a system in which he believed and can find no ground for confidence in those who now govern his country.

The Composition of the Odyssey. By W. J. WOODHOUSE. Pp. 261. Oxford: The Clarendon Press, 1930. 12s. 6d.

So many books have been written on the composition of the Homeric poems that one is at first disinclined to welcome another. Nothing could be more unjust to the author of this excellent work, who has succeeded first in avoiding the violence of many of his predecessors and second in producing a piece of Homeric criticism really worthy of the name. The *Odyssey* is the work of a magnificent poet whom we may agree to call Homer. But when that is said, real Homeric criticism, which lay neglected so long, has only begun. For although it is now generally recognised that to dissect the *Odyssey* by books and verses with a view to assigning the portions to this or that reflector is fruitless and even ridiculous, still Homer did not create the poem entirely 'out of his head,' but had at his disposal a mass of stories as well as some kind of literary tradition. The *Saga of Odysseus* is only one of these stories, and only part of it has been used. Others are folk tales and deep-sea yarns as old perhaps as Minoan times. Then there is Telemachus' quest, which Mr. Woodhouse finds to be a story chiefly of Homer's own creation, since tradition only gave him Odysseus the father and no information about the son. He thinks that the idea of a son looking for his father was particularly Homer's and that the saga of Agamemnon and Orestes may have prompted him to use this theme. Needless to say, there may be differences of opinion about Mr. Woodhouse's theories, but that he has written a book which will appeal both to Homeric critics and to lovers of the *Odyssey* no one will deny.

Die Seele und das Ich im homerischen Epos. By JOACHIM BÖHME. Pp. vi + 132. Leipzig: Teubner, 1929. 8 m.

This book is an expansion of a doctoral dissertation, but is well above the average of such both in method and in the complex nature of the subject. The title is a little misleading, since the bulk of the work is a study of the meanings of the following words in Homer, Hesiod and the Homeric Hymns:—*φρένες*, *κράδιη*, *κῆρ*, *ἦτορ*, *μῆνος*, *θυμός*, *νόος* and *ψυχή*. Of these *φρένες*, *μῆνος*, *θυμός* and *ψυχή* are the most difficult; *κράδιη*, *κῆρ* and *ἦτορ* are predominantly corporeal, while *νόος* is, as near as may be, intelligence. In the case of *φρένες* Böhme seems to the reviewer to find more 'seelische Bedeutung' than the evidence warrants. To say *κεχολώσθην ἐνὶ φρεσὶν* or *εἶδονκα κατὰ φρένα* shows the place where anger and fear are actually felt, and even in *τολπος ἐνὶ φρεσὶ* and *παρήμενος ὀδύμενος* *φρένας* the physical effect of hope and persuasion is not entirely absent, but we modern intellectuals affect not to notice it. Be that as it may, *φρένες* is admittedly often the seat of intellectual activity, as is *νόος*. The account given of *μῆνος* is excellent and does justice both to its etymological connexion with *μύωμαι* (I feel an urge) and to its frequent appearance in the sense of 'fighting strength':—"*μῆνος* wäre etwa die Wucht der Vorwärts-

bewegung, ähnlich wie das lateinische *in patet* neben *patet*." Very complicated is the old puzzle of *θυμός* and its relation both to the ego (*ἐλλά τῇ μοι πατέρα φίλος θυμὸς ἔσται θυμός*;) and to *ψυχή*. Böhmé is well acquainted with his predecessors in this field, Rohde and Wundt, still more W. F. Otto and E. Bickel. When a man died he lost not only *θυμός* but *μένος* ἥτορ and the rest, but retained (or became) his *ψυχή*. He lost his *Lebensseele* (Böhmé would like to say *Lebensseele*) and became a *Totengeist*. On the question whether *ψυχή* belonged also to the living (Bickel) or only came into being with death (Otto), Böhmé steers a middle course. *ψυχή* originally, he says, meant breath, then life not as opposed to death, but that which continues through life and death. The question may not be discussed here, but we must cite the truest words in the book: Sollte nicht vielmehr die Unbestimmtheit der Ausdrucksweise in der Unbestimmtheit der zugrundeliegenden Vorstellung selbst ihren Grund haben?

The ̓ Rhapsody of the Iliad. Annotated by A. PALLIS. Pp. 101. Oxford: University Press, and London: H. Milford, 1930.

Those who read even the preface to Mr. Pallis's edition of *Iliad* XXII (1909) will know what kind of text to expect here of the eighteenth book. It is all too easy to work one's idea to death and so bring about incredible results. Worse than that, a writer's obsession with one idea may lead him to adapt his evidence to fit his theory. Everyone knows that Homeric forms were sometimes altered *metri gratia*; but that is no reason why we should change numerous dactyls 'back' to tribrachs, and condemn as spurious verses which are not 'rhythmically susceptible of alteration.'

History and Cartulary of the Greek Monastery of St. Elias and St. Anastasius of Carbone. By GERTRUDE ROBINSON. I. *History*: pp. 80; being *Orientalia Christiana*, Vol. XI-3 (Num. 44, Maio, 1928). II. *Cartulary*: pp. 160 and pp. 200, being *Orientalia Christiana*, Vol. XV-2 (Num. 53, Iunio-Iulio, 1929), and Vol. XIX-1 (Num. 62, Iulio-Augusto, 1930). Frontispiece, facsimiles and a map. Rome: Pont. Institutum orientalium studiorum.

It is a piece of great good fortune that, although the South Italian Basilian monastery of Carbone has itself entirely disappeared, a long series of documents, wills, deeds of gift, leases and so on has been preserved. Miss Robinson has found these in the archives of the Doria Palace in Rome and has now published them: the Greek text, an English translation, and a glossary of the harder words and the necessary tables and indices. She has given us in all sixty-eight documents, all but three being in Greek, ranging in date from A.D. 1007 to 1193, and covering the most important period of the history of the monastery.

The first part of the book is devoted to an outline of the history of the monastery, the detailed matter being for the most part drawn from the documents themselves. It was a foundation of the tenth, and flourished extremely in the eleventh and twelfth centuries. In the thirteenth century the long process of the decay of all these Italian Greek monasteries had begun. The great schisms had cut the monks off from the centre of Greek life at Constantinople, and they were left more and more to the hostility of the local Latin ecclesiastical authorities. By the end of the fifteenth century Carbone had no longer a true abbot: his place was henceforth taken by abbots in *commendam*, laymen supposed to live in the monastery and protect the interests of the monks. Finally, at the beginning of the nineteenth century, the monks of Carbone had sunk to two or three, and in 1808 the monastery was suppressed by the French. All that is now left is a fragment of wall, and the only indication that this is the sole surviving fragment of a once flourishing monastery is a large black wooden cross which has been erected in recent years to mark the sacred spot. A pathetic photograph of these scanty memorials forms Miss Robinson's frontispiece.

But though Carbone has disappeared, these documents are still left, and in publishing them the author has done an important service to students of mediæval Greek. It is a commonplace that to trace the history of modern Greek in anything like detail is from the

lack of documents extremely difficult. Here then we have a notable fresh mass of material to be added now after some fifty years to the earlier collections of Trinchera, of Cusa, and of other Italian scholars.¹ Linguistically indeed the extremely popular and 'modern' character of the language employed gives these new documents a very special importance. Not that the Carbone charters can be said to be entirely in the popular spoken language. The monks and their scribes and notaries were at least to some extent scholars, and for these legal purposes they used a sort of chancery style with learned words and phrases, but always mixed with more or less of the actually spoken language, a form of Greek of which we still have a living remainder in the Greek now spoken near Lecce and at Bovis in Calabria.

The establishment of these texts can have been no easy task: from the photographs of the originals which she has given it is plain that the palaeography of these charters is often extremely difficult. These questions we must, however, in the absence of a full set of facsimiles, leave aside, and confine what is to be said to the texts themselves, as the author presents them to us. The original spelling has been, very properly in a book of this sort, preserved, and as much of the original writing of breathings, accents, abbreviations and so on, as typographical possibilities permitted, has been reproduced. In quoting from the texts we have generally normalised the accents and breathings, when there seemed no immediate purpose in preserving these minutiae.

A full review of such a book as this would demand far more space than is here available, and its importance will no doubt draw detailed criticism in some of the journals specially devoted to Byzantine studies. Here only a few points can be noticed, and we confine ourselves to the actual interpretation of the texts. Even so, innumerable suggestions might be made. In not a few cases a reader may feel that the author has not found the true solution of a difficulty, but that it is at the same time very difficult to think of something better. Many of the documents dealing with landed property give the boundaries of the piece in question, and these definitions of boundaries give rise to very many problems. For example, can τὴν πηγὴν τοῦ σαμβό in LIX, 28, mean *the spring*, not of *Sambor*, as the author suggests, but the *spring of Sambor*? Other puzzles are XXXIII, 12, 14, where the crux is the meaning of δονικῶς—XXIV, 2, where ἐτύπωσ' is likely to mean *assigned* (*recessus to*), for which see Durango, *Gloss. græc., s.n.* τυπῶναι, quoting from Nicetas γράμμα . . . τυποῦν αὐτοῖς ἀργύρεα ἐτήσια σέματα. The word occurs often in Spata, *Diplomata greci siciliani* (*Miscellanea di storia italiana*, XII), where it means *to decree*: ἐντοπῇ οὕτως (p. 22), *so it was decreed*. And with an accusative of the person commanded: ἐτύπωσεν αὐτοὺς ἵνα ποιήσωσιν (p. 18), *I commanded that they should make*, etc.—XLIa, 11, where σώζουσιν perhaps means *complete* from the modern meaning of σώζω, *to reach*—XII, 10 with the mysterious ἀπορῥιστος—LIX, 32—and others might be given.² In some six passages (XVII, 38; XX, 26; XXI, 29; XXII, 33; XXXVII, 75 and 84; LXVII, 4) we get such forms as λαχῶ, λαχάν(τον), λαχόντ(α), λαχός, which the author generally translates as a proper name, *Lacon*, or *Lachontas*. But in her note on one passage, XVII, 38, where we have τὸ χωροφίτζιν τὸν (?τοῦ) λαχόνταντ(ου), and as a translation *the little faem (that of Lachontas)*, she suggests that λαχόνταντ is perhaps the participle of λαγχάνω, and compares two other passages (XX, 26 and XXI, 29), in the former of which she translates by the name *Lacon*; the latter is left untranslated. In the note she is, we think, on the right track. In the passage LXVII, 4 we have κῶνασας τοῦ λαχῶ καὶ νικόλασας ταλλιακούλλιας, and ταλλιακούλλιας apparently means *So and so (tale quale)*. We think it probable that all these forms really come more or less barbarously from λαγχάνω, and are participles with some legal technical meaning; perhaps, *he who happened to be there*.

In several cases modern Greek provides the solution, where the ancient language fails and even misleads. I give examples. In II, 27 we should translate *with the vines, the orchards, the fields and the pastures*, not *and the herds*, for although in ancient Greek βοσκήματα means *fed animals*, in the modern language it has the meaning *pastures*, here clearly required by the sense. Ἡμροδένδρια, *cultivated trees, orchards*, has in other

¹ A bibliography of these sources is in Gustav Meyer's *Neugriechische Studien*, I, p. 94.

² As the documents are all numbered and the lines numbered, we have found it convenient to use these numbers for reference, and not the page-numbers.

passages (e.g., III, 15; VII, 38) been translated correctly.—In XII, 25 περὶπαύσιν is very much more likely to have its modern meaning *comfort, entertainment*, than its meaning in Hellenistic Greek, *provision*.—In LIX, 40 φορά means a *time*, and δύο φορές τοῦ ἐνιαυτοῦ, *twice a year*; *harvests* in the translation, a sense extorted from the ancient use of the word, is quite off the track. These charters were written by people who spoke something very like some of the more archaic dialects of the present day, and are, in fact, a fresh piece of excellent evidence for the early formation of the modern language.

In a book of this pioneer sort errors are inevitable, and we feel that the writer may have slipped occasionally from the sheer fatigue of working at such a series of puzzles, especially as we not seldom find a phrase or word translated in one place rightly and in another wrongly. And to solve all the problems presented by such a collection of texts as these requires a fuller equipment than most scholars possess. The suggestions we feel it not useless to make must serve as our own contribution to the task. Since Miss Robinson wrote, an important contribution to the study of this Italian Greek has appeared in the shape of Gerhard Rohlfs' *Etymologisches Wörterbuch der unteritalienischen Gräzität*, Halle, 1930. This invaluable book not only collects all the words of the Greek dialects from earlier books, but adds others, and joins to them all the Greek words scattered in the Italian dialects of southern Italy. We refer to it below simply as Rohlfs' *Wörterbuch*.

The translation is as a rule good, but is sometimes inclined not to keep close enough to the Greek. Sometimes even a phrase is omitted altogether: e.g. in I, 27; II, 31; II, 16. But more often the result is a certain lack of sharpness. For example, the interesting detail that the property was handed over by the symbolism of a wand (δὲα ρόβδου) in XII, 31 is omitted, where too in the face of those to come should be in the presence of those about to sign below. So too in XXXI, 15, ἀνεπτύξαντες means *having unfolded* (a document), not merely *having examined*, and *diligently examined again* in XLVII, 46 is not adequate for ἀκριβῶς ἀνεγνώσαντες. Several words too are often mistranslated:—Γονεῖς means *parents or ancestors*, and neither *kinsfolk* (XII, 55; XVI, 65; XVII, 32) nor *children* (LI, 71). Εὐλοβῆς is *pious*, and not *wise* (XXVI, 7) nor *renowned* (XI, 14). So too ἐξέταλος means *cousin*, not *brother* (X, 48; XII, 16). Κατὰ χρόνον (XI, 24, XIa, 22; XLVII, 55) means *not according to the time, or to the season, but yearly*, and in the last of these passages the first *sigma* must be for *stigma, six*, and the translation run *every year six measures*. In LX, 16, κατνιαυτόν; correctly translated by *yearly*; so too κατ' ἔτος in XIa, 17.

In several cases a fairly obvious error may be corrected. These are not so likely to be in the MSS. as to be misreadings or simply misprints. We have noted, and give the word as we think it should stand:—I, 45, κοινωνίας, meaning probably *Communion*.—II, 60, ἔξω.—XII, 47, δηλωθεῖσι, and translate *in addition to all the things declared in my first disposition*. The reading δηλωθεῖσι, translated by *taken away*, as if it were from δημεῖας, makes no sense; also three lines further down we have δηλωθεῖσι.—XV, 17, ξυνοπόταμον.—XVI, 30, οὔται = οὔτε, not οὔσαι.—XXV, 23, σπουδήσουαν.—XXVII, 42, πρὸς.—XXXIV, 12, ἐθυμώθην.—XXXV, 11, ἐπονομαζουμένης.—XXXV, 17, περιοχὴν.—XXXVIII, 8, ἔδειξεν (ἔδειξεν).—XXXIX, 30, read the imperf. 3rd pl. τιμιβόλου, and translate, *These points our men were questioning, and we were with them, thinking that they were in the right*.—XLVII, 47, οὐδὲ.—XLVII, 61, ἐκ τῆς.—In X, 11, we suggest ἐνοεῖαν for ἐνοίαν, and translate, *Since after the (previous) legacy I made her she has shown still greater attention to (me) the testator, . . . for this reason I now leave to her (in addition) also two vineyards, etc.* The author's rendering hardly makes sense.

There are some passages in which the transcription of the letters seems to us to be accurate, or at most needing some slight emendation, but where we would combine them into different words. The text to be applied is, of course, any improvement in the sense as obtained. The notable passages are:—

I, 7. ἀποκρίσασιν is for ἀποκρίσας με, not for ἀπεκρίσάμην. It is a participle parallel to ἀποδώσας in the next line.—I, 37. The sense of the passage is, *And since it is impossible for me to provide for the community their complete bodily nurture and comfort, and I work according to my power, I therefore grant them, etc.* The construction of the clause καὶ τὸ καταβύναμην ἐργάζεσθαι is obscure, but it cannot mean *and I am incapable of work*, and in καταβύναμην we must certainly see κατὰ δύναμιν.—III, 16, where ἀφῆρτάν εἰπαμι be the unmeaning ἀφῆρτον, but is αὐδ(ε)ντία, and coupled with the ἔξουσιαν, which occurs just before it.

—VII, 35. The words του δη τηκου κειμενον do not contain *τειχος*, but should be read τὸν δυτικὸν κρημὸν, *the western cliff (of the said castle)*. XII, 41. *ἐπιτήν* is not *hospitium*, but rather, *εἰπεὶν τήν*, and the translation of τήν μὲν μίαν ἐπιτήν ἐμήν is *the one (viewpoint), that is to say, the one that is mine (I leave to my daughter Anna, etc.)*.—XIII, 15. For πεποιτι καὶ read perhaps the participle παροιστηκώς.—XVII, 79. In την εχω ἀπερρόσην we should not see the substantive ἀπερρώση, but the verbal form ἔχω ἀπερρώσων, *which I have dedicated*, where the note suggesting that it is a perfect is correct.—XL, 30. Read κινήσωμιν σι, with σι, etc. as the objects of κινήσωμιν, as correctly taken in the similar passage in XI, 26, where, however, εἰς θυμὸν καὶ ὀργήν, correctly taken here, are wrongly translated. The rendering of both passages should be, *but if we in wrath and anger at this service due, stir up and you your successors*, etc. In the translation of XL *with-out* on p. 49 is a dangerous misprint for *without*.—In LIII, 38, in the phrase σὺ μὴν ἦσται καὶ παντοίοις διακατόχοις, we should read not εἰς τι, but εἴσται (εἰσέσται) and σὺ μὴν may be corrected to οὐτις. The reading will then be οὐτις εἴσται καὶ παντοίοις διακατόχοις, and the meaning, *shall be for you and for your successors of whatever kind*, unless indeed παντοίοις is merely an error for the no longer used and therefore unfamiliar πᾶσι.—So too in LIII, 52 we should take ἡμῖν, not, as the note suggests, for ἡ μὴν, but for οὐτις, which is to be construed as coupled with the following accusative τυγχαίναν, a barbarous blunder for the dative. But in any case a final -v, being probably not sounded, counts for very little in such a text.—In LVI, 19 παλ is for πᾶσαι, as the translation takes it, and should not in the text be written παλιν.—In LX, 16 the author reads πολλὸν θεοῦ ὀδηγοῦτός μοι καλογ(ε)ρ(ω), construing the first word as μάλλον, which, however, in its proper sense is meaningless, and has to be translated *moreover*. We propose μᾶλλον. Then instead of καλογίρα, translated *and the life of a monk*, as if it were καλογρεύειν, an infinitive being required, we would propose καλλιεργέιν, *to cultivate*, which appears in lines 13 and 24 of this same document. We would translate, *intending, God being my guide, to cultivate (the place)*, and the sentence goes on, *and every year to pay to the monastery one μανό*, which the author explains as one μνᾶν, and translates *one pound*. The situation is that the petitioner asks the monastery to let him have the church of St. Catherine and the lands attached: he will cultivate the lands and keep up the whole place, and pay a yearly rent; he is also to be regarded as a brother of the monastery and to be buried there; he promises too to leave the monastery at his death one half of his movable property. All through the deed καλλιεργέιν, used three times, means, we think, no more than *till the ground*, and the quotation of the spiritual use of the word from the Liturgy seems to us irrelevant. In line 18 θεῷ should not be read as θεοῦδεῖρα. It is clearly for θεῷ, as the author in a note sees it should be: the difficulty she sees in the v vanishes when we remember that v is a mere misspelling for the identically sounding letters xi. In line 23 ἡξάμενοι is a bad reading for ἡξάμενοι (εἰξάμενοι).

These documents are a treasure-house of notable words, not a few of them of great interest for the mediæval and modern language. The author, following up a remark in her preface (p. 272 [4]), presents us with two suggested Homeric survivals, *μεγερσίον*, taken as μέγαρον (IV, 19) and δόμορ (XX, 8). We might accept these as genuinely in the documents, without admitting that they were in colloquial use at this time; the extreme improbability of this is shown by the lists of words surviving from different periods in Hatzidakis' paper *Περὶ τῆς ἐνότητος τῆς ἑλληνικῆς γλώσσης*.¹ They might be, that is, lawyers' archaisms. But we cannot see that μέγαρον is in the text at all: there seems no reason from the context why μεγερσίον should not mean *chamber*, and therefore be the usual modern word μεγερσίον. On the other hand, δόμορ is certainly in the text, the context being οὐν τῇ ἐμῇ δόμορ. Further, the author supports it by telling us that she heard this word used for *moglis* by an old man at the Greek-speaking village of Contrignano dei Greci near Lecce. But we suggest that the man may, in fact, have been

¹ This is reprinted from the *Ἐπεὶ τὴν τ. 190630 πανμοιρηται*, Athens, 1909. On p. 101 Hatzidakis points out that to the Attic prose writers more than half of the Homeric vocabulary had gone out of use, and that of the half then used two-thirds have disappeared from the modern language. And further, both δόμορ and μέγαρον appear in his list of 'words exclusively Homeric,' that is, of words which after Homer appear only in the poets.

using some form of the Romance *dama*. Nor is δάμαρ in Rohlf's *Wörterbuch*. We hope that we are not too sceptical in thinking that δάμαρ here is a scribe's archaism.¹

Several other words deserve mention. For *son* we have twice in our deed (XX, 2 and 8) the word βαδ(ι)ον, βαδισ, which the author thinks is a form of παδίσιον with the π changed to β, though her parallel, the Italian *befous* for ἐπιφάνει, is not very convincing. Nor does the passage which she quotes from Trinchera (p. 324, line 20) show the use of the word to mean *colt*: this she seems to have read into the passage from her conviction that βαδίσιον is παδίσιον. Trinchera's document merely has τὸ δὲ ἀλογόν μου τὸ βάδισιον, which he translates by *equum badium*, the word being the Latin *badius*, *bay*, the colour of a horse, and the mediæval Greek βάδιος. The passage is here irrelevant. We believe the word to be *valium*, βάδισιον, a *pledge*, used like *pignus* to mean *son*; for both which words see the *Glossaries of Dumange*.—To find ὁ γρίπος (XVII, 63) and the neuter form τὸ γρίπον (XX, 48) so early and without doubt from the context meaning *fishing-boat*, throws an interesting light upon a difficult word. This brings the word closer to γριπεῖς, which was Jal's suggestion, and casts doubt upon the Oxford English Dictionary's suggestion, *s.v.* gripe, that the word is connected with the French *gripper*.—For *western* we find, besides the usual δυτικός, the form δυτικός, following δούσις, and the hybrid δυτικός. The form δυτικός is in the papyri, in mediæval Greek, and survives in the present dialect of Chios.²—These texts contain several place-names in -ῶσα and -ούσα, derived from the name of plants: examples are ἀκανθῶσα (XXXVII, 35; LXVIII, 15); σχοινῶσα (LXVII, 85); καννῶσα (LXVII, 39).³ We would particularly note τὴν μονκῶσαν (LXVII, 65), also in the form τὸ μονκῶσον (LXVII, 23 and 87), which is likely to mean *place of poppies*, from the Doric form of the ancient μηκων. The word is now out of use, but in 1916 in Karpathos we gathered the word μηκωνίς, surviving also in a Doric form as ἡ μονκωνί(8)α, with the old meaning of *poppy*.—In LXIV, 1 ναυτηγοῦ is an odd form: it is either, as the author thinks, formed on the analogy of στρατηγός, and means a *sea-captain*, or it is ναυπηγός, altered under the influence of ναύτης, and means a *shipwright*.—In LXVIII, 39 we have τοῦ φοσσάτου, meaning not as it usually does *army*, but with its earlier meaning of *camp* surrounded by a ditch, the Latin *castrum fossatum*, for which see G. Meyer's *Neugriechische Studien*, III, p. 72. The word occurs immediately after στασιονή, a *station-house*, and therefore this meaning seems more appropriate than *ditch*, by which the author renders it: the word can bear both meanings.—Lastly, χανδάκιν (LXVII, 176), meaning a *ditch*, has nothing to do with the Greek χανδός *governing, roving*, which the author translates, we do not know on what authority, by *varius*, but is from the Arabic word *haudek*, from which the name *Canalis* is derived. Presumably the Arabs brought it to Italy as they brought it to Crete.

There are also not a few interesting forms. In βημόσιον (LIX, 61) for δημόσιον we see initial δ changing to β, a phenomenon which Rohlf's (*Wörterbuch*, p. xlv) reports from Calabria. It recalls also the present Greek of the Southern Sporades. Such metatheses as γραυέου (XXXV, 9) and ἀρχούρον (XXXV, 49, and LVI, 49) might be found anywhere, yet they are marked by Rohlf (p. xlvii) as a special feature of Italian Greek.

Several other passages should be briefly mentioned. I, 38. Translate *six asses, four oxen, etc.* And ἀξινάριον means *axe, not axe-head*.—II, 13. τὸν καθ' ἡμῶς θάνατον means *mortal death, death as men die, not death for us*.—II, 24. Translate, *not to please men, but in the fear of God*.—II, 56. Translate, *and when he dies, he shall not have leave to hand over all these things, etc.*—II, 58. Translate, *and if his death occur suddenly when we are not present, beginning in some distant place, etc.*—II, 70. διατηρήσωσαν πάντα means *let them guard everything*.—VII, 3. σημαιοφόρου (σημαιοφόρου) means *banner-bearer, not wonder-worker*. This is the *θεῖος*, not *δύτιος*, *Λουκῆς*, whom the Greek *Symmaristis* for November

¹ That it is an archaism is further suggested by its not being declined, like the undeclined δάμα, which is common in the sixteenth-century Italian-Greek Pentateuch (*Les cinq livres de la Loi*, edited by Haessling).

² For both these words, γρίπος and δυτικός, we refer to the glossary of an edition of the Cypriot chronicle *Makhaireas* now being printed at the Clarendon Press.

³ For these words in general see Amanton, *Die Suffixe d. neugriech. Ortsnamen*, Munich, 1903, pp. 12, 299. See also a note on *Oranibouan* in the edition of *Makhaireas* just referred to.

6th calls of *Theoiminos*.—VII, 10. *Theophanes*, not *Stephen*. And he was not exactly 'renamed Theodoulos.' By μετανοήσας δένειν is meant that he changed his lay name *Theophanes* for his new name as a monk, and this was *Theodoulos*. And right down to the present day Greek monks take a monastic name with the same initial as their old name in the world.—VII, 16. The text has σὴν τῆσιν αὐσὴν μὴ ἀδελφῆς, not μου, so translate with *certain men* not *brethren*.—VIII, 1. *Spatho candidatus* is a slip for *spatharocandidatus*.—VIII, 9. Translate *those who propitiate the divine (power)*.—VIII, 48. Translate, probably, and of my humble self.—X, 28. σπιθαμῶν οὐκ hardly mean *steps*. It must be for σπιθαμῶν, *spans*, and the phrase defines the width of the staircase to be removed. Also in LXIV, 39 we actually have σπιθαμῶς, meaning clearly *spans*.—XII, 29. *Pankalos* is a proper name, as is recognised in the translation of line 68 below.—XII, 30. Translate, *I promised*.—XII, 37. διοδοθεῖναι, *to be distributed*.—XVI, 19. Translate, *to me and to our overlord*, etc.—XVII, 10. ὅταν, *wherefore*, not *when*.—XVII, 20. παροίκους εἰκτακούς means *domestic serfs*, not *servicemen's houses*.—XVII, 47. *St. Eupheminios*, not *St. Euphemia*.—XXIV, 14. δουλείων must mean *services*, and not *servants*. The construction of the passage is obscure, but it seems to be for ποί, and the sense seems to be something like, *but when any of the services due to me becomes urgent, then you are to go and ask the abbot*, etc.—XXVII, 44. Translate, *and that he was in every way refusing to accept justice*, etc.—XXVII, 67. Not *the queen* penalty, but *the mid* penalty.—XXVIII, 13. Translate, *the souls of all of us who come after her*.—XXVIII, 42. νυχθήμερον ἐν (ἐν) should not be translated *day and night*, but *for one day and one night*. It is, in fact, the legal expression to which the author calls attention in a note to XXIII.—XXXII, 17. Translate, probably, *to them and to me*. 'To translate δὲ αὐτῶν by through them in this context is to pay a compliment to the Greek which we think it hardly deserves.'—XXXV, 26. The sentence is very hard, and the translation gives the general sense, we think, correctly, but the text would be much plainer with a stop after ποί, and none after μηδελ. —XXXVI, 11. αὐταῖς is not for ὑπὸ μετά, but is for ἐν' ἐμῇ, and the translation is a form belonging to the monastery of Carbone which is under me. The abbot is speaking. Exactly parallel is ὑπὸ σε in XL, 9 and XLa, 10.—XXXVI, 37 and 51. τὸ πρὶν χρόνον (τὸν ἡμῶν χρόνον) means *for the past year*, *wise*, that is, of the past season. In line 33 below the word is translated correctly.—XXXIX, 42. Translate, *incur a penalty to be paid to the king*, etc.—XLIII, 16 and 19. Here συνήθεια means *tax*, *exaction*; for which see *Ducange, Gloss, graec.*, συνήθεια, *Conventuale, Tributaria, Fecigial*. Translate therefore in line 10, *to put an end to the iniquitous taxes which have been exacted by certain ill-conducted officers before my time*, etc.; and in line 19, *all these unrighteous exactions*. αὐτῶν referring back to the πρακτόρων of line 11.—LI, 20. The same shows that μετασθῆ means *not with thee*, but *after thee*. By this time the use of the genitive after the preposition was a literary archaism, carrying no special sense with it, and μετά had quite ceased to mean *with*.—LI, 52. Translate, *let us be inheritors of the curse with Judas*, etc.—LII, 9. Translate, *to all the men of the church under thee*. It can hardly be doubted that κατὰ σε here is used just like ὑπὸ σε in XL, 9, etc.—LIV, 19. This olive-tree, not this olive-yard.—LIX, 16. Θεοσπεργτός means *crowned by God*.—LIX, 39. δουλεία occurs in several passages and means *service in kind*, but χωρίς τινὸς δουλείας is here translated by *without constraint or guilt*, as if there were some connexion with δουλος. The sense really is *without any service being demanded in return*. In this passage δουλας is exactly like δώσιος in XI, 46, where the translation should be, *without any denying and without any gift of any kind (being made)*. This alone we reserve for ourselves, that you should have us in remembrance, etc. So too in XIII, 47, where εἴην εἰς δὲ ποτε τίλος does not mean *for ever*, but *without any tax at all (being paid)*.—LIX, 47. εἴην here must mean *besides*; the form of the translation seems to us quite impossible.—LXIV, 24. Why should κοιμητήριον here mean *dormitory*, rather than *burying-ground*?

And lastly, the present reviewer may be pardoned for saying in his own defence that he did not intentionally say, as he is reported in the note on XII, that at Bova 'words like *fori*' are pronounced as *efi* or alternatively as *esi*. The word, in fact, was *efi*. We now know from Rahlfs' *Wörterbuch*, p. 77, that the difference is, in fact, from one village to another of the Bova group. At Bova they say *efi*, in other villages of the group *efi*, and also *efi*. Nor did he wish to give μάλονος as the genitive of μάλος in Cretan, as is said in the note on XIII; such forms are, in fact, Pontic.

So much space has been spent on these linguistic details that it is not possible to do more than allude to the human side of these documents. Though they are all of them legal, hardly any of them can be said to be dry. The historian may read of the protection given to monasteries and churches by King Roger and by other Norman princes (XXIV, XXVI-XXVIII, XXXI, XLVI), but as most of the documents are concerned with gifts of land, it is on the social conditions of the country that most light is thrown. The gifts to the church range from farms and lands down to an annual donation of a pound of incense. Some documents deal with more or less petty quarrels; XIX, for example, is about a mare. Of great personal interest are the wills. The widow Gemma (IV) left her property between her nephews and the church, not forgetting her slave Rhessa, to whom she left the cottage in which she had been living, and her other slave Maria, to whom she left her bed and four measures of corn from the coming harvest. Genesios (X and XII) minded to become a monk, most carefully disposed of his estate, not omitting his slave Lucia and the daughter he had had by her: ten years later on his death-bed he made a further disposition. We hear of several abbots of Carbone: in XV of the abbot Blasios, who knew when he was beaten in a lawsuit with the Prior of Massanova. For the mutual convenience of herself and the monastery Pauleta (LXIV) arranged an exchange of her house for another one. Few of these women could write: Pauleta made her cross but 'without her name'; sometimes a man could sign where his wife could only make a cross before witnesses. The deeds as a rule end with calling down curses on any party who should repent of his bargain and wish to change his mind. The Trinity and the curse of the three hundred and eighteen inspired fathers, the fathers, that is, of the council of Nicaea, are the most generally invoked. After these thunders the pecuniary fines to be paid come rather as an anti-climax.

All students of mediæval Hellenism will be thankful to Miss Robinson for the skill and courage with which she has carried through this very difficult task. A third part of the cartulary is promised, which will contain the Latin deeds: these naturally go down much later than the Greek documents, and the latest are of the sixteenth century.

R. M. D.

Ἱστορικὰ Σελίδες Τήνου. Φραγκοκρατία-Βενετοκρατία-Τουρκοκρατία, 1207-1821. By ΚΩΣΤΑΣ ΚΑΙΝΟΥΡΤΣΙΑΚ. Pp. 224. Athens, 1930.

The author of this excellent monograph on Tenos has read practically all that has been published by travellers and from the Venetian archives about 'the last Venetian island in the Aegean,' of which, as a former prefect of the Cyclades, he has personal knowledge, and has printed a list of the Catholic bishops and an appendix of interesting documents from the archives (now unfortunately burned) of the Catholic cathedral. He describes the history of Tenos under the Ghisli down to 1390, under the Venetian Republic from 1390 to 1715, and under the Turks from 1715 to 1821 with the brief Russian interval from 1771 to 1774. The complaints of the islanders against Venetian rule included the hardship of 'night vigil' in the castle in winter and the obligation to give the heart and tongue of every slaughtered animal to the governor. The new calendar caused dissension between Orthodox and Catholics; but, after the Russian occupation, the Turks left them 'almost free.' The Napoleonic wars divided them into two parties according to their religious, which were also their political, opinions. Chapters are devoted to two natives of Tenos—Zallany, author of the well-known work on the Phaeacians and of the *Voyage à Ténos*, and the 'national martyr,' Georgantopoulos, killed in 1821 for having organised a play called *Greece and the Tourist*—and to an Ithacan, Bretton, who was Russian consul there in 1807. The *Thesotomies* (p. 108) were obviously the Teutonic Knights, whose headquarters in Greece were at Mosteniza. There are 8 illustrations.

W. M.

Ἡ Καισαριανή. By JOANNES GENNADIOS. Pp. 54. Athens: Glanakes, 1930.

The author has an ancestral interest in the famous Attic monastery of Kaisariané, for his mother's family, the Benizeloi,¹ was connected with it and he was therefore baptized there. After mentioning the books already dealing with it, he cites the lines of Ovid about the site—lines till lately painted on a stone there but now erased—describes the architecture and iconography, enumerates the chief historical events of which it was the scene, and discusses the origin of the name, which in his opinion comes from some Byzantine 'Caesar,' who was, at some unknown date, its founder. He quotes the inscription at the west end of the church about the painting of the narthex during the plague of 1682, gives the names of the abbots and dependencies of the monastery, and alludes to the fate of its library. An appendix treats of the rivers Ilisos and Eridanos. There are copious notes containing extracts from travellers and others. Since Dr. Gennadios was last in Athens—in 1926—there have been two changes at Kaisariané: the water no longer flows from the 'ram's head' which gave the monastery its Turkish name, and the *archon's* tomb of the late Turkish period has been moved to the Byzantine museum.

W. M.

Παλαιολογία καὶ Πελοποννησιακά. (Τόμος Δ'). By SP. P. LAMPROS. Pp. xxx + 328. Athens, 1930. 175 dr.

The fourth volume of the late Professor Lampros' posthumous collection of documents on the history of the Peloponnese under the Palaiologoi comprises 94 pieces, of which 42 are now published for the first time. The latter include six letters of Theodore I. Palaiologos to Amedeo of Savoy, one of the claimants to the principality of Achaia: a letter of the Doge of Genoa, Fregoso, to Constantine: an anonymous letter in verse to him referring to the naval battle at the Echinades in 1427 between John VIII and Carlo I. Tocco, and warning him not to marry Theodora Tocco; silver bulls of Theodore II to the sons of Gemistos; two letters of Bessarion to him; a monody of Nikephoros Chalkas on the death of Theodore's wife, Cleopa Malatesta, mentioning the existence of a senate in the Morea; an address of Plutarch to Demetrios Palaiologos which is a new source for the second civil war of 1451; an encomium to him with an account of Lemnos; letters of Thomas Palaiologos to Ludovico Gonzaga of Mantua and the Duke of Milan, Francesco Sforza, mentioning Italian aid against the Turks in the Morea; several letters about Thomas' children, and bulls of Sixtus IV, the Duke of Modena and the Council of Nurnberg, and a vote of the Council of Siena about the reception of his daughter Zoe on her way to marry the Grand Duke Ivan III. M. Bogutskides has provided a scholarly introduction.

W. M.

Die Briefe des Sokrates und der Sokratiker. By LISELOTTE KÜHLER. (*Philologia, Supplementband xx, Heft ii.*) Pp. 142. Leipzig: Dieterich, 1928. 10.50 m.

This edition of the Socratic letters—the first for over half a century—provides a text based on new MS. material, and is equipped with translation, commentary, and an *index verborum*. The author takes the view that the letters are all spurious, and at any rate later than Diogenes Laertius and Athanasius.

The Book of Diogenes Laertius. By R. HOPE. Pp. xiv + 241. Columbia University Press, and London: Humphrey Milford, 1930. 17s. 6d.

'This essay is intended to provide an introduction to the book of Diogenes Laertius and an analysis of the thought-pattern underlying its composition.' It may roughly be divided into two parts, the first dealing with the MSS. and editions and with the sources of the book, the second collecting the thoughts under such headings as 'Diogenes Laertius as Encomiast,' 'His Tributes to the Eminent Philosophers,' etc. The work gives evidence of much

¹ *J.H.S.*, 1930, p. 193.

industry, but of little critical power. The opinions of Laertian students are collected without discrimination, and the author's desire to be comprehensive is apt to produce ludicrous results: 'Editors and critics, translators and commentators, printers and publishers have laboured for centuries to bring the text nearer to perfection' (p. 30). The contribution of publishers and printers to the textual emendation of the classics has at last received due recognition! However, used with caution, Mr. Hope's book may prove of no inconsiderable value to students.

Greek Thought and the Origins of the Scientific Spirit. By L. ROBIN. English translation by M. R. DOBIN. Pp. xx + 409. London: Kegan Paul, Trench, Trübner & Co., 1928. 21s.

The full title suggests that this book is intended to discharge two functions. One of these it discharges with extraordinary success. The essential originality of the Ionic School is vindicated in a well-reasoned and illuminating chapter, the pre-Socratics generally are characterised with much lucidity and penetration, and the importance of Socrates himself could scarcely be found better explained than here. But as a history of Greek thought the work is ill-proportioned. Plato and Aristotle are well enough expounded—though one may doubt whether an historian should rest satisfied with a mere analysis of the Platonic dialogues—but the post-Aristotelian philosophies are treated sketchily and somewhat perfunctorily. However, the book abounds in observations which no student of Greek philosophy can afford to neglect, and the translation by Mr. M. R. Dobie is adequate.

Histoire de la littérature grecque chrétienne. By A. PACH. 3 vols. Pp. 500, 668, 693. Paris: Association Guillaume Budé, 1928-30.

M. Pach conceived his work as a companion to Labriolle's *Christian Latin Literature*, but has spread himself far more. The three volumes are devoted respectively to the New Testament, the second and third centuries, and the fourth century.

Platon. By A. DRIES. Pp. 221. Paris: Flammarion, 1929. 12 fr.

This book belongs to a series called 'Les grands cours,' and gives a pleasant but rather sentimental portrayal of the man Plato. A short concluding chapter treats of his influence in a markedly tendentious spirit. One question may here be raised: can the Academy be justifiably called 'une école de science politique' (p. 216)?

Plato and the Authorship of the *Epinomis*. By A. E. TAYLOR. Pp. 85. London: Humphrey Milford, 1929. 7s. 6d.

Dr. F. Müller of Lüneburg in a recent thesis endeavoured to show by a close examination of its linguistic peculiarities that the *Epinomis* was not a work of Plato, but was probably to be attributed to Philippos of Opus. Professor Taylor seeks to vindicate its Platonic authorship, examines *seriatim* the peculiarities adduced, and explains them mainly on the supposition that the work, belonging to Plato's old age, evinces his failing powers.

Xenophon: Hellenica. Ed. C. HUXEY. (i) Editio maior. Pp. x + 343. 8 m. (ii) Editio minor. Pp. 282. Leipzig: Teubner, 1930. 3.20 m.

This edition of the *Hellenica* is based on a new collation of Codex B. It is issued in a major and a minor edition, the latter omitting the critical introduction and *apparatus criticus*, but retaining the *index nominum*.

Dionysius Halicarnassensis. Vol. VI. *Opuscula.* Edd. H. Usener, L. Radtzmacher. II. 2. Pp. xxix + 32. Leipzig: Teubner, 1929. 3.60 m.

After an interval of a quarter of a century Professor Radtzmacher has produced the preface, together with an *index nominum et locorum*, to the second volume of the edition by Usener and himself of the critical works of Dionysius. Long despaired of, its appearance will be all the more welcome to students of Greek literary criticism.

Menandri Reliquiae. Ed. C. JENSEN. Pp. lxxvi + 184. Berlin: Weidmann, 1929.

Menander is here edited with an introduction dealing with the constitution of the text and the placing of the fragments, a bibliography, an elaborate *apparatus criticus* and a full *index verborum*. It is a conscientious piece of work, not only on the part of the editor but also on that of his printers and publishers.

Classical Studies. By G. M. SARGENT. Pp. viii + 283. London: Chatto and Windus, 1929. 7s. 6d.

These essays, graceful in style and pleasantly discursive, were worth collecting within the covers of a single volume. All are variations on classical themes, such as the Greek Athletic Ideal, the Classical Pastoral and Giorgione, the Landscape of Virgil; the last essay is an illuminating study of a great humanist, Winckelmann. But perhaps the best of all (in spite of a rather luckless title) is the second, which treats with much acuteness of the subject of romanticism, or rather the lack of it, in Greek literature and art, and includes some excellent remarks, somewhat in the vein of criticism associated with Worringer, on the Parthenon.

The Works of Aristotle, translated into English under the editorship of W. D. ROSS. *Physica.* Translated by B. P. HANDBY and R. K. GAYE. No pagination. Oxford: Clarendon Press, 1930. 10s. 6d.

The high standard of the Oxford translation of Aristotle is well maintained in this fascicle. The text followed is in the main Bekker's, but many changes have been admitted (and duly noted) as a result of a study of the reported MS. readings and of the Greek commentators.

La tradition manuscrite et les éditions des discours de l'Empereur Julien. By J. Bidez. Pp. i + 152. University of Ghent, 1929.

Professor Bidez, having edited the letters of Julian, now passes to the speeches. The present work, which discusses some sixty MSS. inspected by the author, is of the nature of prolegomena to the proposed edition, to whose appearance in the Budé series all students of Julian will look forward with much eagerness.

Euripides. By W. N. BATES. Pp. xiii + 315. Philadelphia: University of Pennsylvania Press. London: Humphrey Milford, 1930. 21s.

'The plan adopted has been to set forth in three preliminary chapters an account of his life and the chief characteristics of his work, and then to follow this with special studies on each of the extant plays.' There is also a chapter on the lost plays, and a useful bibliographical appendix, 'Euripides in the Papyri.' The volume is equipped with many illustrations from vase-paintings.

Platonis Epistulae. Ed. F. NOVOTNÝ. Pp. vii + 310. University of Brno, 1930.

A detailed and unprejudiced commentary on the Platonic epistles was a real need. Suspicion brought neglect, and, as Mr. Novotný aptly remarks, 'ea facillime anapiciuntur quae minime intelleguntur.' This edition should do much to break the vicious circle and establish criticism on a surer basis. Mr. Novotný's own conclusion is that all the epistles are genuine except the first.

Festschrift Walter Judeich. Pp. 290. Weimar: Buchhaus, 1929. 15 m.

This collection of essays, presented to the distinguished Professor of Ancient History at Jena, by his colleagues on his seventieth birthday, covers a wide field. Nine out of the fifteen are of direct interest to classical students; they treat of the following subjects:—the oldest walls of Athens; Anaxagoras and Democritus; the coinage of Pergamon; the text of Varro's *de re rustica*; St. Paul and Seneca; Tacitus' *de civitatibus*; the dating of early Christian Latin inscriptions; knowledge of the geography of Egypt shown by Greek and Roman writers; doctor and state in antiquity.

Andocide: Discours. Ed. and tr. G. Dalmeyda. 25 fr.

Aristophane: Tome V; L'Assemblée des Femmes; Ploutos. Ed. V. COULON; tr. H. VAN DERK. 30 fr.

Joséphe: Contre Apion. Ed. Th. REINACH; tr. L. BIEM. 28 fr.

Platon: Tome IV, 2^e partie; Le Banquet. Ed. and tr. L. ROUS. 25 fr.

Xenophon: Anabase I-III. Ed. and tr. P. MASQUERAY. 30 fr.

Marc le Diacre: Vie de Porphyre. Ed. and tr. H. GRÉGOIRE, M. A. KUORNER. 35 fr.

Les Argonautiques d'Orphée. Ed. and tr. G. DOTTY. 50 fr.
Paris: Assocn. G. Budé, 1929-30.

The first five volumes belong to the well-known 'Collection des Universités de France,' the 'Budé series' proper. That they will in no way diminish the high reputation of the series may be inferred from the names of the distinguished scholars who have produced them.

The life of Porphyry, bishop of Gaza, belongs to the 'Collection Byzantine,' but conforms to the conventional Budé style. The differences of the edition of the Orphic *Argonautica* are a long and detailing introduction dealing with every aspect of the poem and a very full *apparatus criticus*.

Εικονογραφημένη ή Δωδεκάνησος και ή Δ^η Συντακτική των 'Ελλήνων 'Εθνοσυνέλευσις. Τόμος Πρώτος. By DR. SKEVOS ZERVOS. Pp. 705, with a map, 88 plates and 638 figures. Athens: P. D. Sakellarios, 1930.

This is a very interesting and in many ways remarkable book, and it will be found of great value by those who wish to gain an insight into the problems confronting the statesmen of post-war Greece. The author, who is a doctor of medicine and a native of Kalymnos, is well-known both for his professional works and for his numerous books upon the Dodecanese. The substance of the text of the present work is formed by the official reports of speeches delivered by Dr. Zervos as deputy for Athens-Piræus in the Fourth National Constituent Assembly of the Greeks between January and November 1924, in which this energetic deputy expressed his views upon a great variety of subjects, the most important being those connected with education, the settlement of the refugees, and above all the question of the Dodecanese. But Dr. Zervos also showed a lively interest in many other minor problems, such as the widening of the Corinth canal, the development of Greek spas, the water-supply of Athens, etc. In the brief period of his deputyship he witnessed the fall of several ministries, and he attributes these rapid changes, probably with justice, in some measure to the nerve-strain produced by protracted sessions in the hottest months of the

year. It would be too much to expect that the author's speeches, often delivered under these trying circumstances, should be marked by the absence of *studium* and *lex*, but they display a wide knowledge of the various political problems, and are distinguished throughout by a lofty and fervid, if at times rather narrow, patriotism. It is, however, patriotism of this kind which has enabled Greece to solve the terrible problem of the refugees with a success which, it may be said without exaggeration, has commanded the admiration of the world. The question of the Dodecanese is, almost inevitably, treated with a violent anti-Italian bias. Those readers who deplore this should try to place themselves in the position of this ardent and patriotic son of the Dodecanese. They will, at any rate, find here the main historical facts, and can exercise their own critical powers as to the author's presentation of his case.

For the scholar and lover of Greece the most attractive part of the work will be the really extraordinary wealth of the illustrations and the full descriptive notes which accompany them. He will find a portrait-gallery of recent Greek politicians, a series of pictures illustrating the difficulties attending the settlement of the refugees, and above all numerous photographs of the heroes, costumes, sites, buildings and treasures of the islands of Kalymnos and Patmos. Patmos naturally possesses the greatest general interest on account of its famous monastery of St. John founded in the eleventh century. The wealth of its ecclesiastical treasures and manuscripts will come as a surprise to many, and the author has done science a good service in making a permanent record of these masterpieces of Byzantine art. The photographing was, he says, attended by considerable difficulty and some personal danger, so that our gratitude should be all the greater. The quality of the reproductions varies a good deal, but many are excellent. To the reviewer's mind the least successful are the so-called colour-plates, which are really monochromes printed in rather distressing yellow-buff. A valuable feature for the palaeographer is the chronological series of handwriting specimens, ranging from the fourth to the fourteenth century.

The volume is a worthy monument of Greek patriotism, and the lover of Greece will look forward to the appearance of the second volume, which will deal with the remaining islands of the Dodecanese.

F. H. M.

Miniatures des plus anciens MSS. grecs de la Bibliothèque Nationale du vi^e au xiv^e siècle. By HENRI OMONT. Paris: Honoré Champion, 1929.

This book is an amplification of M. Omont's *Miniatures des plus anciens MSS. grecs de la Bibliothèque Nationale* published some thirty years ago, by the addition of sixty-eight more plates reproducing miniatures from twenty new MSS. from the great Paris collection. The introduction remains practically the same as that of the previous work and there is still the same erroneous statement that the second drawing made for Peiresc, français 9539, f. 31, showing the promise to Abraham, from the Cotton Genesis, represents Genesis chap. xv. 1. Comparison with the original shows that the original miniature, Cotton MS. Otho B vi, f. 18, is placed beneath Genesis xii. 1-3. First reproduced is the Sinope fragment, followed by the four MSS. reproduced in the earlier work, the miniatures for the Nicander Suppl. grec 247 being all given. The first of the new MSS. to be reproduced is the important Psalter fragment, grec 20, with its connexion with the Moscow Chudof Psalter and the other members of the so-called monastic-theological group of Byzantine illuminated Psalters. Two possible errors should be noted in the description of this MS. First the Theodora Psalter in the British Museum is Add. MS. 19352, not 19351; secondly, *Resurrection des morts*, PL LXXVII, No. 20, is a slightly confusing rendering of 'H 'Ανάστασις, which is the subject depicted. Plates LXXIX-XCI are devoted to portraits of the Evangelists from the tenth to the fourteenth century, a most valuable collection for study of the change of style. It is perhaps a pity that the interesting exedra behind the St. John of Coldin 195, PL LXXXI, is not better reproduced, especially as there is no mention of it in the description of the plate. Following this series is the fine New Testament cycle of the Italo-Byzantine fourteenth-century Gospel book, grec 54, which, though already used by Millet in his *Iconographie de l'Evangile*, has never been fully reproduced; especially interesting are the unfinished miniatures, so valuable for the study of technique. After two plates from the

lives of the saints, four MSS. eleventh to fourteenth century of the liturgical version of the works of St. Gregory Nazianzen are reproduced: two of the type employing illustration at the beginning of each chapter and two of the type which use miniatures placed in the text. Finally, there are four plates from the four well-known MSS. Cantabrigia, Hippocrates, Dosiadus and Theocritus.

It is a magnificent corpus of plates and the descriptions are excellent, though one laments the fact that the dates of the MSS. are not placed upon the plates which reproduce them. It is, moreover, rather confusing to put the folio references at the bottom of each plate instead of underneath the miniatures to which they refer. Three times folio references are not given on the plates at all; cf. Pla. CXVI-CXVIII, though they are given in the description of the plates.

Hesiodi Theogonia. Edited by EMILY JACOBY. Pp. 212. Berlin: Weidmann, 1935.

This is a critical edition of the *Theogony*: the editor hopes to write a commentary at some future date. A critical edition challenges us at once to look at the text. The devices and designs by which this is ornamented do not inspire us with confidence. Jacoby tells us that he has endeavoured to print a text which shall show us the poem in the form in which it left Hesiod's hands, and that this original poem may be obtained by omitting four classes of additions: viz. (1) New matter relating to things or persons omitted by Hesiod; the additions are due to rhapsodes of seventh to sixth centuries: examples are Heracles, Typhoea. This class is further subdivided into first, second, third, etc., additions. (2) Amplifications of subjects treated by Hesiod, e.g., eclipsing of Night, War of Titans. (3) Double treatments of the same thing, e.g. the double proemium and other minor doublets added by rhapsodes. (4) Interpolations proper in so far as they can be distinguished from (2) and (3). All these additions appear in smaller print than the original poem and are further distinguished from each other by various marks on the left-hand margin. Thus for (1) there are vertical parallel lines up to a maximum of three: these series of lines may also be numbered 1, 2, 3, 3a, 3aa, 3b, 4, 5, and so on at top and bottom. If only we could sum this series in the 5th term, we could probably calculate the net sale of copies of the *Theogony* for any year in the sixth century. As it is they are apparently designed to tell us the chronological order in which the additions are supposed to have taken place. Jacoby is not always certain to which class of spurious matter a particular passage belongs, but 'still,' he says, 'the straightforward method and design of the whole poem, and the restraint (*verecundia*) exercised, as we have shown, by rhapsodes in expanding the work of a famous poet, give us confidence, first that we have for the most part discerned the truth, and second that it is generally quite possible to decide which portions go back to Hesiod, and which have been added afterwards in the course of recitation by others.'

It would, however, be a pity if all this pretentiousness were to deter students of the *Theogony* from using this book. In the Introduction, written in Latin, there is much useful matter, dealing with papyri, Hesiodic orthography, etc. An important part of such a work is the history of our text. Jacoby thinks that Rzach's classification of MSS. was in some respects faulty, and in particular blames him for not seeing that between a ninth-century archetype and the mediaeval MSS. there must have been a number of copies made, if we are to account for such facts as that our copies do not always show the poems in the same order, and that some MSS. do not contain all three poems. Jacoby finds three lines of descent from the ninth century archetype. This ultimately depends on an edition of imperial times containing the three poems. That such editions existed is inferred from papyri. Of its history before that time it is hazardous to speak. The poem ends with lines forecasting the *Catalogue of Women*. But a similar transition has already taken place at L 963, where the poet takes leave of the gods proper and goes on to tell of the progeny of unions between goddesses and mortal men. So it is possible that at one time the *Theogony* ended at 962, lines 963-1019 being a *ῥησέως ὁμιλία* (Heyne). But the *homogony* cannot belong to the *Catalogue of Women*! For the rest of the poem the internal evidence has been variously interpreted and various 'original' *Theogonies* sketched. The reviewer is doubtful whether

Jacoby's ambitious and complicated scheme will command any wider acceptance than those which he rejects.

T. A. S.

Three Cretan Plays—the Sacrifice of Abraham, Erophile and Gyparis.

Also the Cretan pastoral poem, *The Fair Shepherdess*. Translated from the Greek by F. H. MARSHALL, with an introduction by JOHN MAVROGORDATO. Pp. vi + 338. Oxford University Press, 1929.

Six plays, Mr. Mavrogordato tells us, are still extant to testify to the fact that at the beginning of the seventeenth century 'there was in Crete a Greek community sufficiently cultured to demand the performance of plays of the same general type as those which were being enjoyed all over Western Europe.' Their immediate connexions are, of course, with the Italian theatre—Crete having been part of the Venetian dominions for some 400 years—but they are much more than mere adaptations or translations, and being written in the living idiom of the island they constitute 'outstanding achievements in the body of modern Greek literature.' Of the circumstances in which they were produced next to nothing appears to be known; only one of them is other than anonymous. The three which are here introduced to the English reader by Prof. Marshall are respectively a miracle play, a tragedy of blood, and a pastoral, with a short and rather charming idyll as an addendum. The miracle play on the sacrifice of Abraham, a subject popular also in France and England, is of considerable interest and, in places, power, and it has been successfully acted of recent years both in Greece and in Holland; quite possibly the pastoral might also prove a success, for it is better diversified than such pieces usually are and by no means wanting in humour. Except for a few lyric passages, the originals are composed throughout in 'political' verse, for rendering which Prof. Marshall has chosen its nearest English equivalent, the fourteener, a rather refractory metre, which he has not always succeeded in duly ballasting and keeping on an even keel; but it would be ungracious to press this point in view of the general interest of what he puts before us. Mr. Mavrogordato's introduction, consisting largely of a synopsis of the three plays, will be in great part familiar to readers of the *J.H.S.* for 1928.

V. S.

La morale et la loi dans la philosophie antique. By A. BILL. Pp. xv + 301. Paris: F. Alcan, 1928.

This book, as the preface explains, is intended to be a preliminary study to a further work with the title *La Dieu de l'Évangile et le Dieu de la loi*. But while considering the problem of the Mosaic law as envisaged by the early Christians, the author was led to make a preliminary survey of the ideas of law in ancient philosophers. He recognises, of course, that the problem of reconciling the law of the gospels with the law of Moses was something entirely different from the more general philosophic problem of the reconciliation between the rights of the civic authority and those of the individual. But he thinks that something has been lost by over-emphasising the difference, by not taking into account the fact that the law of Moses was civic as well as religious. Moreover, in early Christianity 'nous constatons assez souvent une répercussion des doctrines philosophiques s'appliquant aux lois humaines sur l'enseignement du christianisme au sujet de la loi révélée' (p. 10). But the details of this re-percussion are deferred till the future work. In this he is concerned to trace the different conceptions of law in ancient philosophers, especially their attitude towards the civic code and the moral law—the relations between a positive law and a moral way. For this was very like the problem faced by the early Christians when they were confronted with the Mosaic law on the one hand and the gospels on the other. The survey deals chiefly with (1) Hesiod, the pre-Socratics and the Sophists; (2) Socrates, Plato, Aristotle; (3) Cynics, Stoics, Aristippus and Epicurus, Sceptics, neo-Pythagoreans, etc., and Cicero. There are some thirty pages of citations of the more important passages referred to in the text. The whole is a not uninteresting but far too prolix study. Its value to the classical scholar is not great, but no doubt the real object of the book will be more apparent when its sequel appears.

Ancient Painting. By MARY HAMILTON SWINDLER. Pp. xiv + 489, with 640 illustrations. New Haven: Yale University Press; London: Humphrey Milford, 1929. 25s.

Miss Swindler has chosen a good scale for the first book in the English language on the history of ancient painting; it is sufficiently detailed to be useful as a work of reference without being so minute in treatment as to be useless as a general survey. Thus it falls neatly in between Prof. Huhl's two books, and supplements, and in some respects surpasses, both. The best features of the book are the classified bibliography, the index (which for once in a way is really labour-saving), and the remarkably reasonable price. The illustrations are numerous, but very small; in some cases they are reproduced from unsatisfactory material, and in one instance (Fig. 391) are derived from non-antique originals. On the other hand, they contain a large proportion of rarely illustrated pieces, especially in the later period; of many examples we might quote the carpet-style mosaic from the House of Sarcina at Ugento, six drawings of painted tombs from the Corsini Codex, a variety of frescoes in South Russian tombs, four views of Mariessa I, and a good selection of catacomb-paintings. Generally speaking, the later chapters are the more up-to-date and enterprising; which is perhaps natural, considering how actively American students are now devoting themselves to the late antique. The chapters dealing with the classical period are necessarily more superficial, and are not always abreast of the latest procurable information. On the whole, however, one may apply to Miss Swindler's work, though in a spirit of approbation and not disparagement, the phrase that Petronius used of Alexandrian impressionism, and call it *magna artis compendiarie*.

La Mosaïque. By ADRIEN BLANCHET. Pp. 239, with 24 plates. Paris: Payot, 1928. 75 fr.

M. Blanchet's book is based to some extent on Gauckler's classic article in *Saglio-Pottier*, but its chronological scope is much wider (since it extends to the present day) and in many details it improves on Gauckler, especially in the matter of illustrations.

After a chapter on technique, M. Blanchet proceeds to discuss origins. Here his account needs modifying in several respects. In the first place, having published his book two years ago, he says nothing of the shell and lapis mosaics from Ur; nor does he mention the inlaid columns from Al 'Ubad, which considerably antedate the geometrically-decorated façade at Warka, his earliest example. In the classical period, moreover, he passes over the early fourth-century mosaic at Motya; and without arguing the point assigns a Roman date to the pavement in the pronaos of the temple of Zeus at Olympia, whereas there seems every reason to think that it is at least as early as the fourth century. He is equally, and more justifiably, disinclined to attribute any existing monuments to the early Hellenistic period; and like other students he begins with the first century B.C.

M. Blanchet follows the general modern tendency to ascribe the Barberini nileotic mosaic (which, incidentally, is at Palestrina, not Rome: see p. 62) not to the period of Sulla, but to the imperial age; to give the original of the Alexander mosaic to Philoxenos of Eretria, not to the vague Helena; and to regard Diocourides of Samos as a copyist and not an original artist.

He gives a useful, though incomplete, list of artists' signatures on p. 55; and other interesting details about donors, based on inscriptions at Puzos and elsewhere. He states that no signatures are found in Italy between the fourth and the eleventh centuries, though they occur at Constantinople and in Syria; he might have added the names of Georgios and Kosmas, Martyros and Faustinos, who signed the fifth-sixth-century mosaics in the church of S. Anastasia at Arhusu on Karpathos. As to the question of itinerant cartoons and copybooks discussed at length by Dr. Schmidt in her monograph on the Barberini mosaic, he keeps an open mind, remarking that no exact replicas seem to occur.

In chronology M. Blanchet generally accepts the customary dates. He places the Tyre mosaic in the Louvre c. 600, however; doubts, though for no apparently adequate reason, the traditional date c. 400 for the apse of S. Pudenziana; and favours the fifth-century date for the nave mosaics in S. Maria Maggiore, as against Grisar (whom he does not mention).

In twice describing San Vitale as a copy of S. Sophia, he overlooks the fact that the Ravennate church is the older by about six years.

M. Blanchet's notes on Lombard Romanesque mosaics at Cremona, Pavia, Piacenza, etc., seem to ignore the researches of Kingsley Porter; but his chapter on medieval pavements generally is a welcome collection of material not otherwise immediately accessible.

The bibliography is good, if fragmentary; there is unfortunately no index.

R. H.

Orient et Occident, II. By J. EBERSOLT. Pp. 113, with 16 plates. Paris and Brussels: G. Van Oest, 1929.

The second volume of M. Ebersolt's study of the relations between France and the Near East during the Middle Ages is devoted to the period of the Crusades. He first discusses the cultural effects of such political events as the Christian kingdom of Jerusalem and the Latin empire of Constantinople, the loss of the Holy Land and the Mongol invasion, the Turkish invasion and the loss of Constantinople; and he finally describes the influence of Byzantine and Asiatic art on French Romanesque and Gothic.

Die Tondächer der Akropolis. By ERNST BUSCHOR. I. SIMON. Pp. 53; 63 illustrations in text and 12 plates in colour. Berlin: W. de Gruyter & Co., 1929. 60 m.

This is the first publication to bring some kind of clarity into the obscure subject of the architectural painted terra-cottas of the Acropolis. Large quantities of fragments survive, but no classification of them has hitherto been attempted. Prof. Buschor examines the character of the two great centres of architectural terra-cotta industry in the seventh century—Corinth and Sparta. The Spartan type spread over Laconia, Arcadia, Olympia and Aegina, the Corinthian over Argolis, Delphi, Corfu, and Aetolia. Curiously enough, it was not the Laconian which reached Athens but the Corinthian, despite the proximity of Aegina. The Corinthian style, both of construction and of painted design on the *simas*, was paramount at Athens almost to the middle of the sixth century. From that time Athenian influence begins to make itself felt, and gradually there develops a 'black-figure' style of *simas*-painting which slowly merges into a 'red-figure' style, closely following the development of vase-painting in that aspect of it that concerns the decorative adjuncts of vases. Between the Persian destruction of 480 and the Persian reorganisation of the Acropolis many of the old buildings, damaged but not destroyed by the Persians, seem to have been reconditioned and repaired. Inevitably their terra-cotta adornments were largely remade at this time. Naturally the author makes no attempt to attach any of his twenty-six types of *simas* with certainty to any specific building, except in the case of the Troilos pediment. For there were many buildings, as, for instance in the Brauroneion area, of which we know nothing whatsoever.

The coloured plates in which the *simas*-designs are shown developed, are of the greatest help for those who wish to make a study of the growth of highly conservative convention.

S. G.

Ancient Corinth, with a topographical sketch of the Corinthia. Part I: from the earliest times to 404 B.C. By J. G. O'NEILL. Pp. 270; 6 plates. Baltimore: Johns Hopkins Press; London: Humphrey Milford, 1930.

This survey of Corinthian history comes from the pen of an Irish scholar who has been closely associated with the American excavators on the spot. He has produced a lively and readable book, full of clear-cut verdicts and forcibly expressed opinions. Comment on it is made here section-wise.

In the introductory chapter on topography Prof. O'Neill describes the structure of the Corinthia clearly, and he effectually disposes of the belief that the whole of it was of a low order of fertility. In fixing the boundaries of the Corinthia he might have consulted the

arbitral award on the Corinth-Megara frontier in *J. G. IV.* 21, 71. The name of the second port on the Saronic Gulf is proved to have been Pelraeus, not Sperraeus, by the inscription in *J. G. IV.* 329.

A close connexion between prehistoric Corinth and Crete is suggested by Prof. O'Neill, who derives the chief Corinthian deities from that island. He is severe on Dr. Leaf's opinion that in Mycenaean times the site of Corinth was deserted. He could have strengthened his case here by describing more fully the results of the American explorations.

In the section on Bacchiads and Cypselids the author gives a good sketch of what little is known about the Corinthian constitution, and he adduces some evidence for dating Phaedon's conquest back to the eighth century. He deals rather summarily with the disputed chronology of the tyrants, and he does not sufficiently discuss the overseas relations of Corinth. The weakest point in his book is his failure to trace the Corinthian trade in ceramics. On this question the monograph by Wilisch, excellent for its time, is now out of date, and a new survey of the evidence would have been desirable. The presence of Corinthian vases at Naxos, and their increasing rarity in Italy and Sicily after 500 B.C., are sufficient examples of the historical value of the pottery finds. The relations between Corinth and her colonies might have been illustrated by the significant fact that the coins of the colonies (except Corcyra) were struck on the Corinthian type.

In reviewing the record of the Corinthians in the Persian Wars, Prof. O'Neill argues, not without success, that they were self-centred rather than selfish. He does not discuss the supposed 'flight' of the Corinthian squadron at Salamis.

On the rivalry between Corinth and Athens and the antecedents of the Peloponnesian War the author makes a number of good points. He rightly emphasises that the occupation of Naxos was a serious threat to Corinth, though he hardly justifies his description of the alliance between Megara and Athens as a 'death-blow' to Corinthian interests (p. 189). With equal good reason he minimises the importance of the Megarian decree or decrees of Pericles. He effectively exposes the weakness of the Corinthian case against the Corcyraeans. But he appears to overshoot the mark in asserting that the Corinthians intended in any case to entroid the Peloponnesus with Athens; and it is difficult to reconcile the statement that in 433 Athens was still exhausted by the disasters which led to the Peace of 446 (p. 203) with the contention that Sparta feared the increase in Athenian power (p. 209). Mr. O'Neill hardly strengthens the case of those who hold that the Peloponnesian War was inevitable against those who believe that it was due to unskilful handling of a by no means desperate situation.

The illustrations of the American excavation area will be welcome to readers who have not seen the excavation reports.

M. C.

Wirtschaftliche Schwankungen der Zeit von Alexander bis Augustus.

By F. HIRSCHLERN. Pp. 142; 16 tables; 2 graphs. Jena: Fischer, 1930, 6 m.

In this volume fresh ground is broken over a new field of inquiry in two directions. In the light of the most recently published data the author has supplemented and at times corrected the price-statistics of previous scholars. In particular, he has extensively amended Gloiz's remarkable set of curves for Delos. Again, whereas earlier investigators have usually confined their attention to single commodities or to particular places, he has brought into connexion the figures relating to different articles and various sites. By this method he has arrived at two important conclusions. He has shown that prices in general moved in sympathy with those of wheat, which may therefore be used as an index of the total costs of life; and that the eastern Mediterranean tended more and more to become a single economic area in which prices attained a fairly uniform level. The author goes on to draw some interesting conclusions from his statistics, e.g. on the economic effect of the political disorders in Egypt under the later Ptolemies, and on the reasons why immigration into that country was brisk during the third century but fell away during the second. But he is far too good an economist to jump at the many hasty but delusive inferences which his figures suggest; indeed he candidly warns his readers that we must wait for the Corpus of

Prices in Egypt now in preparation before a general synthesis for that country can be profitably attempted.

The book is an important contribution to the proper understanding of the Hellenistic period, and it marks a definite stage forward in the study of Greek economics.

M. C.

Zum Aufbau der Geschichtserzählung bei Polybios. By A. FELDLMANN. Pp. 93. Bern: E. Pölck & Co., 1929.

This dissertation contains a minute analysis of two typical passages in Polybius—the story of the Mercenary Revolt (I. 65–88) and the account of Hannibal's campaigns in 218–16 (III. 6–118)—with the object of setting forth his principles of composition. The author's main conclusion is that Polybius was at pains to group his material symmetrically, and that to this end he sacrificed that impression of movement which a perfectly balanced style cannot convey. This result may appear somewhat startling, in view of the fact that the main theme of Polybius' history is the perpetual motion in the growth of the Roman empire, and that a running scene shows up better on a frieze than on a pediment. But it helps to explain why a writer who took so much trouble about his style, and had an almost ideal subject for his pen, requires a constant effort of attention on the part of his readers.

In a short appendix on Polybius' speeches Dr. Feldmann makes the interesting observation that the harangues of Hannibal and Scipio to their soldiers are written *in persona*, and make allowance for the different kind of appeal to which the Punic and the Roman troops would respond. The corresponding speeches in Livy might have been used to develop this point.

Hellenistic Civilisation. By W. W. TARN. Second edition. Pp. viii + 334. London: Arnold, 1930. 16s.

In this new edition Mr. Tarn has rewritten a few passages which needed reconsideration in the light of new evidence, and has supplied brief references to support statements for which the authority does not lie close at hand.

The fact that this first impression should have been sold out in three years commends Mr. Tarn's book more than any review. It is also an encouraging sign of the awakening interest in the later Greek world which the author has done so much to call forth.

Corpus Medicorum Graecorum. Auspiciis Academicarum Associationum ediderunt ACADEMIAE BEROLINENSIS HAMBURGENSIS LIPSIENSIS:—

Vol. XI. 1: *Phlumeni De Venenatis Animalibus, eorumque Remedii*; ex codice Vaticano primum edidit MAXIMILIANUS WELLMANN, 1909.

Vol. XI. 2. 1: *Pseudo-Galeni In Hippocratis De Septimanis Commentarium ab Hunaino Q.F. Arabice Versum*; ex codice Monacensi primum edidit et Germanice vertit GOTTFRIED BERGSTRÄSSER, 1914.

Vol. V. 9. 1: *Galeni In Hippocratis De Natura Hominis, In Hippocratis De Victu Acutorum, De Dieta Hippocratis in Morbis Acutis*. Ediderunt JOANNES MEWALT, GEORGIVS HELMERICH, JOANNES WESTENBRUGER, 1914.

Vol. V. 9. 2: *Galeni In Hippocratis Proorrheticum I. Comm. III. De Comate Secundum Hippocratem. In Hippocratis Prognosticum Comm. III.* Ediderunt HERMANNUS DIELS, JOANNES MEWALT, JOSEPHUS HERR, 1915.

Vol. V. 4. 2: *Galeni De Sanitate Tuenda, De Alimentorum Facultatibus, De Bonis Malisque Suciis, De Victu Attenuante, De Pituita*. Ediderunt KONRADUS KOCH, GEORGIVS HELMERICH, CAROLUS KALFFLEISCH, OTTO HARTLICH, 1923.

Vol. IX. 1: *Paulus Aegineta; Pars Prior, Libri I-IV.* Edidit L. L. HUBNER, 1921.

- Vol. IX. 2: Paulus Aegineta; Pars Altera, Libri V-VII. Editio I. L. HEIBERG, 1924.
- Vol. I. 1: Hippocratis Indices Librorum, Jusjurandum, Lex, De Arte, De Medico, De Decenti Habitu, Præceptiones, De Prisca Medicina, De Aere Locis Aquis, De Alimento, De Liquidorum Usu, De Flatibus. Editio I. L. HEIBERG, 1927.
- Vol. VI. 3: Oribasii Synopsis ad Eustathium, Libri ad Eunapium. Editio JOHANNES RAEDER, 1926.
- Vol. VI. 1. 1: Oribasii Collectionum Medicarum Reliquiae. Vol. I. Libri I-VIII. Editio JOHANNES RAEDER, 1928.
- Vol. VI. 1. 2: Oribasii Collectionum Medicarum Reliquiae. Vol. II. Libri IX-XVII. Editio JOHANNES RAEDER, 1929.
- Vol. IV: Sorani Gynaeciorum Libri IV, De Signis Fracturarum, De Fasciis, Vita Hippocratis secundum Soranum. Editio JOHANNES ILBERG, 1927.

The editors and publishers of the *Corpus Medicorum Graecorum* may well be congratulated on what they have so far accomplished. Here we have—for the first time in many instances such as in the works of Galen and of Soranus—critical editions of Greek medical works free from the inaccuracies which have hitherto obscured them. A patient and thorough search of all the codices, an investigation in which the aid of modern photographic processes was largely invoked, has achieved this happy result. We gladly pay a tribute to the enthusiasm, earnestness and thoroughness of foreign scholarship which has made such an arduous feat possible. The volumes are of serviceable size, the type is large and clear, and the paper is thick and strong, important factors in an edition not likely to be superseded for many years. On the whole the amount of emendation employed is small and of reasonable compass. Codices not hitherto consulted have often given the key to the difficult passage. In some of the volumes, footnotes are given dealing with the authors' indebtedness to other writers, or referring to parallel passages in their own works. One might wish that these footnotes were a little fuller, but the editors had to consider, no doubt, the danger of cumbersome.

In the prefaces an admirably succinct account is given of the codices, but in the three volumes of Galen there is here much overlapping, as the same *codex* is described repeatedly by the different editors. Moreover, it is inevitable, with different editors to the various treatises, that these prefatory remarks should differ in matter and in scope. This disparity in method and style is particularly noticeable in the volumes of Galen's works, where the three or four prefaces are lumped together at the beginning of each volume. However, on the whole the *apparatus criticus* is very complete and the critical account of former editions makes very interesting reading. The labour involved in the collection and preparation of all this material has often been enormous: thus for Paul of Aegina alone there are some sixty codices extant. Each volume, with the exception of those for Hippocrates and Oribasius, is furnished with an *Index verborum* and an *Index nominum*, but it is a pity that these useful appendages are not drawn up on a more uniform plan.

Vol. XI. 1: *Philumeni—De venenatis animalibus, etc.* This is the first appearance of this work. The nature of the Vatican MS. (Gr. 284, Saec. XI) was recognised only in 1906. It is interesting as the only considerable surviving fragment of Philumenos, but is really a compilation, its sources being writers like Archigenes, Strato and Soranus. Much of it is found embodied in Aetius and in Paul of Aegina. It therefore contains little new, but the description of the use of the cautery is important, and some of its sections will appeal to the zoologist. It is very well edited.

Vol. XI. 2. 1: *Pseudo-Galen—In Hippocratis De Septimanis.* This is a translation from two Arabic codices, one of which is at Cambridge. The preface and translation of this work is, exceptionally, in German. We agree that the internal evidence is against the hitherto accepted view that this work is a translation by Hunain of a work composed by Galen. Indeed Galen hesitated to acknowledge that the *De Septimanis* was a genuine Hippocratic treatise (ἐν τῷ Περὶ Ἑβδομήδεων ὑποκρίτους συγγραφόμενον βιβλίον), though he occasionally refers to it. But it is obvious that the writer of this commentary was profoundly influenced by Galen. It would be interesting to compare this treatise with the

MS. (No. 7027) in the Bibliothèque Nationale, which Lâttré believes to be a Latin translation of the lost Hippocratic treatise.

Vol. V. 9. 1: *Galenus in Hippocratis De Natura Hominis, etc.* Vol. V. 9. 2: *Galenus in Hippocratis Procrheticum, etc.* Vol. V. 4. 2: *Galenus De Sanitate Tuenda, etc.* These three volumes which deal with Galen's works illustrate perhaps best of all the *curiosa felicitas* displayed by those who are responsible for this edition. Here we have many difficulties solved and at last a reliable text. The corrections are conservative and on the whole convincing. In the Commentaries the arrangement of the Hippocratic extracts at the head of the different sections is somewhat confusing, the same form of type being used as for the main text, only somewhat spaced. This gives a diffuse appearance and makes the reading difficult, particularly in some of the more unusual Hippocratic words. The introduction by Mewaldt to the treatise on the *De Natura Hominis* is very scholarly. He gives a most interesting history of the various editions, and he is particularly ruthless with Kühn's presentation of this work. Kühn relied for the most part on Chartier, a very inferior editor. The editors regard the Commentary on the *De Salubri Vita* as the third book of the Commentary on the *De Natura Hominis*. This seems reasonable in the light of the Hippocratic treatise as well as from the internal evidence presented by the book itself.

We note that the treatise *De Diasta Hippocratis in Morbis Acutis* is regarded as an authentic work, and the doubts raised by critics such as Gadaldinus Chartier and Ackermann are summarily disposed of.

De Comate sec. Hippocratem. This treatise exists only in a very imperfect codex, the Laurentian, 74. 3 (Sæc. XII). It contains one large lacuna which is represented in the present edition (pp. 187-91) by part of a Latin translation made from a complete Greek text by Nicholas of Reggio at the beginning of the fourteenth century. Chartier re-translated the Latin into Greek. He was imitated by Kühn.

De Sanitate Tuenda. This very important work is edited from two codices in St. Mark's, which were found more satisfactory than the famous Codex Regimensis at the Vatican. We learn that the codex from which Linares made his excellent translation of this work for the Abline edition is now lost. Several graceful tributes are paid to him and also to John Cairns for the care they displayed in their editions of Galen.

De Alimentorum Facultate. This rests on the Codex rescriptus Wassenburgensis 64 at Wolfenbüttel of the sixth century. The Cheltenham Codex (Phillipps 4614) was found disappointing.

De Vita Attenuante. This book was first published in Greek by Kallmüller in 1898, after the discovery of the codex in the East in 1840. Latin codices exist at Paris and at Dresden, depending apparently on a translation made by Nicholas of Reggio. The preface written by Kallmüller is a fine example of critical and discriminating scholarship.

De Ptisma. This book is regarded by Otto Hartlich, its editor, as a compilation made by a disciple of Galen. But the book is Galenic in character, and the fact that he does not refer to it in his other writings is, we submit, no argument against his having written it. It is at all events not an important work.

Diels in his preface in Vol. V. 9. 2 makes a challenging observation when he says that the Commentary on the *De Alimento* is now regarded as spurious and that the authenticity of the Commentary on the *De Humoribus* is also questionable. We eagerly await the arguments on which such a judgment is founded.

Of course, so far only the fringe of Galen's works has been touched on. Those not accustomed to read ancient medicine are not generally aware of the voluminous extent and prolific range of his writings.

Vol. IX. 1 and 2: *Paulus Aegineta; Pars Prior et Altera.* The two volumes of Paul of Aegina will illustrate the wide range of the editor's search for a satisfactory text. It is interesting to observe how little he relies on previous editors. Eighteen codices, including the Mt. Athos codex, have been consulted as the basis of libri I-IV which are included in Vol. I (Pars Prior) of this edition. There are some sixty codices of these books extant. Vol. II (Pars Altera) comprises libri V-VII. The text of this rests on the authority of several codices, of which six at Paris are the most important. Both these volumes have good *apparatus criticus* and footnotes. They are furnished with an *Index nominum*.

Vol. I. 1: *Hippocrates. Index Librorum, etc.* This volume containing part of the works of Hippocrates was originally undertaken by Diels. On his death the task was completed by Heiberg. The *apparatus criticus* at the beginning, though complete, is very condensed. But it is obvious that the collation of the various MSS. has been carried out with painstaking thoroughness, and that all possible sources have been exhausted in the search for a perfect text. A history of the various editions is not included.

The poetical form of the Oath is printed after the ordinary form. This curtailed form is found in the Laurentian Codex (74. 3, Saec. XII, XIII) written in by a later hand, probably of the fifteenth century. It is also found in the two Paris codices. This form was printed by Kühlewein in his Introduction to the *Prognostics* (*Hipp. Opera*, I. 74) and it is also given by Bussemaker in *Poetae Bucol. et Didact.* (Didot, Paris, 1862).

Vol. VI. 3: *Oribasii Synopsis, etc.* Vol. VI. 1. 1 et Vol. VI. 1. 2: *Oribasii Collectionum Medicarum Reliquiae Vols. I and II.* These three volumes containing the works of Oribasius edited by J. Raeder are well done. This is a very complete and scholarly piece of work. The *Synopsis ad Eustathium* and the *Libri ad Eusebium* are a great advance on the edition made by Bussemaker and Daremberg (Paris, 1873). A number of skilful emendations have been made. The two Laurentian codices (74. 17 and 74. 15) and the Paris codex (Gr. 2188) are the sources chiefly employed. The two volumes which comprise the *Reliquiae* also display great care. They rest principally on the authority of the Paris, Cambridge (St. John's A. 6, Saec. XVI) and the Naples codices. All these volumes have copious footnotes dealing principally with references to other writers. Unfortunately they are lacking in Indices.

Vol. IV: *Gynaeciorum Libri, etc.* The editor of the works of Soranus, J. Ilberg, gives a very excellent history of the text in his Introduction. It will be noted that in this edition the *Libri Gynaeciorum* are divided into four books and not into two as in the edition of Hese (Lips., 1882). The text of the present edition is a decided improvement on previous editions. A large number of corrections have been inserted; they seem reasonable and satisfy the conditions very well. Some of them are quite ingenious. The edition made by Ermerins has obviously been found very helpful. The Paris Codex 2153 (Saec. XV) is the one chiefly employed. The Barberinose and Vossianus (which Ermerins used) are regarded as of secondary importance. The papyrus found at Luxor in 1910 and published by De Stephaud in 1913 has solved some difficulties. At the end of the volume there are sixty-seven plates, *Fasciarum Imagines*, which are taken from a Laurentian Codex. They are, however, of varying obscurity and are hardly essential for the integrity of the work.

J. P.

ERRATUM

P. 281, for *C.B.* 32 read *C.B.* 33.

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RULES

OF THE

Society for the Promotion of Hellenic Studies.

I. THE objects of this Society shall be as follows :—

I. To advance the study of Greek language, literature, and art, and to illustrate the history of the Greek race in the ancient, Byzantine, and Neo-Hellenic periods, by the publication of memoirs and unedited documents or monuments in a Journal to be issued periodically.

II. To collect drawings, facsimiles, transcripts, plans, and photographs of Greek inscriptions, MSS., works of art, ancient sites and remains, and with this view to invite travellers to communicate to the Society notes or sketches of archaeological and topographical interest.

III. To organise means by which members of the Society may have increased facilities for visiting ancient sites and pursuing archaeological researches in countries which, at any time, have been the sites of Hellenic civilisation.

2. The Society shall consist of a President, Vice-Presidents, a Council, a Treasurer, one or more Secretaries, 40 Hon. Members, and Ordinary Members. All officers of the Society shall be chosen from among its Members, and shall be *ex-officio* members of the Council.

3. The President shall preside at all General, Ordinary, or Special Meetings of the Society, and of the Council or of any Committee at which he is present. In case of the absence of the President, one of the Vice-Presidents shall preside in his stead, and in the absence of the Vice-Presidents the Treasurer. In the absence of the Treasurer the Council or Committee shall appoint one of their Members to preside.

4. The funds and other property of the Society shall be administered and applied by the Council in such manner as they shall consider most conducive to the objects of the Society, provided that the Society shall not make any dividend, gift, division or bonus in money unto or between any of its members : in the Council shall also be vested the control of all publications issued by the Society, and the general management of all its affairs and concerns. The number of the Council shall not exceed fifty.

5. The Treasurer shall receive, on account of the Society, all subscriptions, donations, or other moneys accruing to the funds thereof, and shall make all payments ordered by the Council. All cheques shall be signed by the Treasurer and countersigned by the Secretary.

6. In the absence of the Treasurer the Council may direct that cheques may be signed by two members of Council and countersigned by the Secretary.

7. The Council shall meet as often as they may deem necessary for the despatch of business.

8. Due notice of every such Meeting shall be sent to each Member of the Council, by a summons signed by the Secretary.

9. Three Members of the Council, provided not more than one of the three present be a permanent officer of the Society, shall be a quorum.

10. All questions before the Council shall be determined by a majority of votes. The Chairman to have a casting vote.

11. The Council shall prepare an Annual Report, to be submitted to the Annual Meeting of the Society.

12. The Secretary shall give notice in writing to each Member of the Council of the ordinary days of meeting of the Council, and shall have authority to summon a Special and Extraordinary Meeting of the Council on a requisition signed by at least four Members of the Council.

13. Two Auditors, not being Members of the Council, shall be elected by the Society in each year.

14. A General Meeting of the Society shall be held in London in June of each year, when the Reports of the Council and of the Auditors shall be read, the Council, Officers, and Auditors for the ensuing year elected, and any other business recommended by the Council discussed and determined. Meetings of the Society for the reading of papers may be held at such times as the Council may fix, due notice being given to Members.

15. The President, Vice-Presidents, Treasurer, Secretaries, and Council shall be elected by the Members of the Society at the Annual Meeting.

16. The President shall be elected by the Members of the Society at the Annual Meeting for a period of three years, and shall not be immediately eligible for re-election.

17. The Vice-Presidents shall be elected by the Members of the Society at the Annual Meeting for a period of one year, after which they shall be eligible for re-election.

18. One-third of the Council shall retire every year, but the Members so retiring shall be eligible for re-election at the Annual Meeting.

19. The Treasurer and Secretaries shall hold their offices during the pleasure of the Council.

20. The elections of the Officers, Council, and Auditors, at the Annual Meeting, shall be by a majority of the votes of those present. The Chairman of the Meeting shall have a casting vote. The mode in which the vote shall be taken shall be determined by the President and Council.

21. Every Member of the Society shall be summoned to the Annual Meeting by notice issued at least one month before it is held.

22. All motions made at the Annual Meeting shall be in writing and shall be signed by the mover and seconder. No motion shall be submitted, unless notice of it has been given to the Secretary at least three weeks before the Annual Meeting.

23. Upon any vacancy in the Presidency occurring between the Annual Elections, one of the Vice-Presidents shall be elected by the Council to officiate as President until the next Annual Meeting.

24. All vacancies among the other Officers of the Society occurring between the same dates shall in like manner be provisionally filled up by the Council until the next Annual Meeting.

25. The names of all Candidates wishing to become Members of the Society shall be submitted to the Council, in whose hands their election shall rest.

26. The Annual Subscription of Members shall be one guinea, payable and due on the 1st of January each year; this annual subscription may be compounded for by a single payment of £15 15s., entitling compounders to be Members of the Society for life, without further payment. All Members elected on or after January 1, 1921, shall pay on election an entrance fee of one guinea.

27. The payment of the Annual Subscription, or of the Life Composition, entitles each Member to receive a copy of the ordinary publications of the Society.

28. When any Member of the Society shall be six months in arrear of his Annual Subscription, the Secretary or Treasurer shall remind him of the arrears due, and in case of non-payment thereof within six months after date of such notice, such defaulting Member shall cease to be a Member of the Society, unless the Council make an order to the contrary.

29. Members intending to leave the Society must send a formal notice of resignation to the Secretary on or before January 1; otherwise they will be held liable for the subscription for the current year.

30. If at any time there may appear cause for the expulsion of a Member of the Society, a Special Meeting of the Council shall be held to consider the case, and if at such Meeting at least two-thirds of the Members present shall concur in a resolution for the expulsion of such Member of the Society, the President shall submit the same for confirmation at a General Meeting of the Society specially summoned for this purpose, and if the decision of the Council be confirmed by a majority at the General Meeting, notice shall be given to that effect to the Member in question, who shall thereupon cease to be a Member of the Society.

31. The Council shall have power to nominate 40 British or Foreign Honorary Members. The number of British Honorary Members shall not exceed ten.

32. The Council may at their discretion elect from British Universities as Student-Associates:—

(a) Undergraduates.

(b) Graduates of not more than one year's standing.

(c) Women Students of equivalent status at Cambridge University.

33. Student-Associates shall be elected for a period not exceeding five years, but in all cases Student-Associateship shall be terminated at the expiration of one year from the date at which the Student takes his degree.

34. The names of Candidates wishing to become Student-Associates shall be submitted to the Council in the manner prescribed for the election of Members.

35. Every Student-Associate must be proposed by his tutor or teacher, who must be a person occupying a recognised position in the University to which the Candidate belongs, and must undertake responsibility for his Candidate, in respect of Books or Slides borrowed from the Library.

36. Student-Associates shall pay an Annual Subscription of 10s. 6d. payable on election and on January 1st of each succeeding year, without Entrance Fee. They will be entitled to receive all the privileges of the Society, with the exception of the right to vote at Meetings.

37. Student-Associates may become Full Members of the Society, without payment of Entrance Fee, at or before the expiration of their Student-Associateship.

38. Ladies shall be eligible as Ordinary Members or Student-Associates of the Society, and when elected shall be entitled to the same privileges as other Ordinary Members or Student-Associates.

39. No change shall be made in the Rules of the Society unless at least a fortnight before the Annual Meeting specific notice be given to every Member of the Society of the changes proposed.

December, 1930.

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- Poole, J. W., *Jesus College, Cambridge* (1, Woodville, Graysend).
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- Purdon, W. T., *Huntingdon, Killybeg, Co. Westmeath, Ireland*.
- Radford, P., *New College, Oxford*.
- Reeves, Miss E. M., *Dunst, Chesham Bois, Bucks*.
- Rickett, D. H. F., *Balliol College, Oxford*.
- Roberts, Brian R.,
- Roberts, Colin H., *St. John's College, Oxford*.
- Roberts, R. L., *Exeter College, Oxford* ("Rhindol," Great North Road, East Finchley, N. 2).
- Robertson, V. S., *South Lodge, Enfield Chase*.
- Robin, Clement Ernest, *St. John's College, Oxford* (27, *Claremont Road, London, E. 7*).
- Rodger, G. G., *Brazenose College, Oxford*.
- Rowland, F. E., 26, *St. John Street, Lichfield*.
- Saroff, L. E. F., c/o *Alias Sarraf, Konab, Lebanon, Syria*.
- Saul, J. S. Wingate, *Packwood Haugh, Rochley Heath, Warwickshire*.
- Scott, Frederick Thomas, 18, *Palewell Park, East Sheen, S.W. 14*.
- Short, G. A., *Oriel College, Oxford*.
- Skeat, T. C., *Romelandfield, Ramsbury Road, St. Albans*.
- Smith, E. W. Stewart, *New College, Oxford* (Southwood, *Hermilage, Berks*).
- Smith, J. C. Llewellyn, *New College, Oxford* (5, *The Grove, Highgate, N. 6*).
- Snee, V. F. J. C., 4, *Glendonner Road, East Sheen, S.W. 14*.
- Somerville, R., 23, *Crown Road, W. 2*.
- Storr, R. W., *King's College, Cambridge* (26, *The Square, Ilford, Essex*).
- Stout, Alan, *St. John's College, Cambridge*.
- Sweet-Escott, Bickham Alfred Cowan, 13, *Blenheim Road, Durdham Park, Redland, Bristol*.
- Tappe, E. D., *Oriel College, Oxford*.
- Taylor, G. O. M., *Brazenose College, Oxford*.
- Taylor, Miss J. du Plat, *University College, London* (Purves, *Greenlaw, Warwickshire*).
- Thompson, Miss A., 21, *Tavistock Street, W.C. 1*.
- Tod, J. C., *St. John's College, Oxford*.
- Townsend, Alexander Cockburn, 9, *Princes Square, London, W. 20* (Magdalene College, Cambridge).
- Unwin, Keith, *St. John's College, Oxford* (7, *Mountview Road, Chingford, E. 4*).

- Walker, Miss I., 49, *Denmark Road, Southport.*
 Wallis, W. W.,
 Walters, R. T.,
 Webbe, Miss Penelope, 9, *The Vale, Chelsea, S.W. 3.*
 Wellesley, K., *Peterhouse, Cambridge* (182, *Gannon's Lane, Watford, Herts.*).
 Wentworth, W. C., *New College, Oxford.*
 White, F. M., *University College, Southampton* (56, *Bulwer Road, Southampton*).
 White, Kenneth D., *Noah's Ark, Peterhouse, Cambridge.*
 Wigham, Derek Roland, *Kerriden, Thomas Ditton, Surrey.*
 Wilkinson, L. P., *Tynemouth School, Tynemouth, Northumberland* (*King's College, Cambridge*).
 Williams, Miss A. M. Harsley-, *Stradbroke, Park Crescent, Erith, Kent* (*Westfield College, N.W. 3*).
 Willis, Miss M. L., *Sherstone, Blythe Road, Bromley, Kent* (*Westfield College, N.W. 3*).
 Wilson, G. H., *Brasenose College, Oxford* (*The Manse, Rainford, nr. St. Helens, Lancs.*).
 Wilson, G. M., *Oriel College, Oxford* (8, *Erskine Hill, Golders Green, N.W. 11*).
 Winniffrith, A. J. D., *Christ Church, Oxford.*
 Wolferstan, D. P., *Trinity College, Oxford* (*Hawkwood, Chislehurst, Kent*).
 Wood, J. Q., *Hariswell House, Wivelston, Somerset.*
 Wood, Miss M. R., 89, *Meadvale Road, Ealing, W. 5.*
 Woolner, E. W. A., *Jesuit College, Cambridge* (10, *The Terrace, H.M. Dockyard, Chatham*).
 Wright, Richard Pearson, *Clare College, Cambridge* (*Newton Tony Rectory, Salisbury, Wilts*).

GREAT BRITAIN AND IRELAND

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- Aberystwyth**, The University College of Wales.
Birmingham, Birmingham Public Libraries Reference Dept., *Ratcliffe Place*.
 " King Edward VI School.
 " The University of Birmingham.
Bolton, The Library, Bolton School, *Charley Kew Road, Bolton, Lancs.*
Bradford, The Free Library and Art Museum, *Darley Street*.
 " Grammar School.
 " The Girls' Grammar School.
Brighton, The Grammar School.
Bristol, The Library of the Grammar School.
 " The University Library.
Cambridge, The Library of the Museum of Classical Archaeology.
 " Newnham College.
 " The Library of St. John's College.
 " Sidney Sussex College.
 " The Library of Trinity College.
 " The University Library.
Canterbury, The Library, Simon Langton Schools, *Canterbury*.
Cardiff, The University College of South Wales.
Charterhouse, The Library of Charterhouse School, *Godalming*.
Cheltenham, The Library of The Ladies' College.
Clifton (Bristol), Badminton School, *Westbury-on-Trym, Clifton*.
 " The Library of Clifton College, *Clifton, Bristol*.
Cranwell, The Library of the R.A.F. Cadet College, *Cranwell, Lincs.*
Crosby, Library of Merchant Taylor's School, *Crosby, Liverpool*.
Croydon, The Library, Croydon High School for Girls, *Willesley Road*.
Denstone, The Library of Denstone College, *Stafford*.

- Derby**, The Library of Derby School, *Derby*.
- Dolgelley**, Dr. William's School, *Dolgelley, N. Wales*.
- Dublin**, The King's Inn Library.
- „ The National Library of Ireland.
- „ The Royal Irish Academy.
- † „ The Library of Trinity College.
- Dundee**, The Library of the Albert Institute, *Dundee*.
- Durham**, The Library of St. Chad's College, *Durham*.
- „ The University Library.
- Edenhall**, The Library of Eden Hall, *Edenhall, Penrith, Cumberland*.
- † **Edinburgh**, National Library of Scotland.
- Egham**, The Royal Holloway College, *Egham, Surrey*.
- Eton**, The Boys' Library, Eton College, *Windsor*.
- „ The College Library, Eton College, *Windsor*.
- Fife**, University Hall of Residence for Women Students, *St. Andrews, Fife*.
- Gaiway**, The University Library.
- Glasgow**, The Library of Baillie's Institution, 224, *St. Vincent Street, Glasgow*.
- „ The Mitchell Library, *North Street*.
- „ The University Library.
- Gravesend**, The Library of the County School for Girls.
- Harrow**, The School Library, *Harrow*.
- „ Vaughan Library, *Harrow*.
- Hayes**, The Library of Hayes Court School, *Hayes, Kent*.
- High Wycombe** (Bucks), Wycombe Abbey School, *High Wycombe, Bucks*.
- Hull**, The Hull Public Libraries.
- „ The Library of Hymer's College.
- „ The Library, University College.
- Leeds**, The Leeds Library, *Commercial Street*.
- „ The Public Library.
- Liverpool**, Liverpool College Library, *Huyton, Liverpool*.
- „ The Public Library.
- „ The Library of the University.
- London**, The Athenaeum Club, *Pall Mall, S.W. 1*.
- „ Blackheath High School for Girls, *Wemyss Road, S.E.*
- † „ The British Museum, *W.C. 1*.
- „ The Department of Greek and Roman Antiquities, *British Museum, W.C. 1*.
- „ The Burlington Fine Arts Club, *Savile Row, W. 1*.
- „ Dulwich, Alleyn's School.
- „ The Library of Dulwich College, *S.E. 21*.
- „ Hampstead, The Haberdashers' Aske's Hampstead School, *Wesbury Road, N.W. 2*.
- „ Henrietta Barnett School, *Central Square, N.W. 11*.
- „ The Library of King's College, *Strand, W.C. 2*.
- „ The London Library, *St. James's Square, S.W. 1*.
- „ Classical VI Form Library, Merchant Taylor's School, *E.C. 1*.
- „ The Oxford and Cambridge Club, c/o Messrs. Jones, Yarell & Co., 19, *Ryder Street, St. James, S.W. 1*.
- „ Parliament Hill County School, *Highgate Road, N.W. 5*.
- „ County Secondary School, *Peckham Road, S.E. 15*.
- „ The Reform Club, *Pall Mall, S.W. 1*.
- „ The Royal Institution, *Albemarle Street, W. 1*.
- „ The Library of St. Olave's and St. Saviour's Grammar School, *Tpoley Street, S.E. 1*.
- „ The Library of St. Paul's School, *West Kensington, W.*
- „ The Six College Library, *Victoria Embankment, E.C. 4*.

- London**, The Society of Antiquaries, *Burlington House, W. 1.*
 " The Library of the University of London, *S. Kensington, S.W. 7.*
 " The Library of Victoria and Albert Museum, *S. Kensington, S.W. 7.*
 " Westminster, City of, Public Libraries, Chief Librarian, Public Library,
Buckingham Palace Road, S.W. 1.
 " The Library, Westminster School, *S.W. 1.*
 " Dr. Williams' Library, *Gordon Square, W.C. 1.*
Loughton, The High School for Girls, *Loughton, Essex.*
Manchester, The Library of the Grammar School.
 " The John Rylands Library.
 " Victoria University.
Newcastle-on-Tyne, The Library of Armstrong College.
 " " The Public Library, *New Bridge Street.*
Oakham, The Library of, Oakham School, *Rutland.*
Oundle, The Library of Oundle School, *Northants.*
Oxford, The Library of All Souls College.
 " The Library of the Ashmolean Museum (Department of Classical
 Archaeology).
 " The Library of Balliol College.
 " The Bodleian Library.
 " The Library of Brasenose College.
 " The Library of Campion Hall.
 " The Library of Christ Church.
 " The Senior Library, Corpus Christi College.
 " The Library of Exeter College.
 " The Library of Hertford College.
 " Meyrick Library, Jesus College.
 " The Library of Keble College.
 " The Library of Lincoln College.
 " The Library of Magdalen College.
 " The Library of Manchester College.
 " The Library of New College.
 " The Library of Oriel College.
 " The Library of Queen's College.
 " The Library of St. John's College.
 " The Library of Somerville College.
 " The Library of the Union Society.
 " The Library of University College.
 " The Library of Worcester College.
Plymouth, The Free Library.
Preston, The Park School.
 " The Public Library and Museum.
Reading, The Library of the University.
Repton, Repton School, *Derby.*
Rugby, Rugby School.
St. Andrews, The University Library, *St. Andrews, N.B.*
Salford, The Library, Broughton High School, *Bury New Road; Salford.*
Sedbergh, Sedbergh School, *Yorks.*
Sheffield, The University Library.
 " The City of Sheffield Public Libraries.
Shrewsbury, The Library, Mill Mead School.
Southampton, The Library of the University College, *Southampton.*
Southbourne-on-Sea (Hants), St. Cathbert's School.
Southend-on-Sea, The Library of the High School for Girls, *Boston Avenue.*
Stonyhurst, The Library of Stonyhurst College, *Blackburn.*

Swansea, The Library of the University College, *Swansea*.
Uppingham, The Library of Uppingham School, *School House, Uppingham*.
Watford, The Library of the London Orphan School, *Watford*.
Westcliff, Westcliff High School for Girls, *Victoria Avenue, Southend-on-Sea*.
Winchester, The Library of Winchester College.
York, St. Peter's School.

IMPERIAL

Adelaide, The University Library, *Adelaide, S. Australia*.
Armidale, Armidale School, *Armidale, New South Wales*.
Auckland, The Library of University College, *Auckland, New Zealand*.
Bombay, The Library, the Royal Asiatic Society (Bombay Branch), *Town Hall, Bombay*.
Brisbane, The University of Queensland, *Brisbane, Queensland*.
Cape Town, The Library of the University of Cape Town, *Cape Town, S. Africa*.
Christchurch, The Library of Canterbury College, *Christchurch, New Zealand*.
Dunedin, The Library, University of Otago, *Dunedin, New Zealand*.
Grahamstown, Rhodes University College, *Grahamstown, S. Africa*.
Halifax, The University Library, Dalhousie University, *Halifax, N.S., Canada*.
Johannesburg, Public Library, *Kerk Street, Johannesburg, South Africa*.
 " University of Witwatersrand, *Johannesburg, South Africa*.
Melbourne, The Library of the University, *Melbourne, Australia*.
Montreal, Library of McGill University, *Montreal, Canada*.
Ontario, The University Library, Queen's University, *Kingston, Ontario, Canada*.
 " The Western University Library, *London, Ontario, Canada*.
Point Grey, B.C., Library of the University of British Columbia.
Pretoria, The Registrar, Transvaal University College, *Pretoria, S. Africa*.
Saskatchewan, University of Saskatchewan, *Saskatoon, Saskatchewan, Canada*.
Sydney, The Public Library, *Sydney, New South Wales*.
 " The University Library, *Sydney, New South Wales*.
Toronto, The University Library, *Toronto, Ontario, Canada*.
Wellington, The Library of Victoria University College, *Wellington, New Zealand*.

UNITED STATES OF AMERICA

Akron, The Library, the University of Akron, *Ohio, U.S.A.*
Albany, The New York State Library, *Albany, New York, U.S.A.*
Allegheny, The Carnegie Free Library of Allegheny, *Pittsburgh, Pennsylvania, U.S.A.*
Amherst, The Amherst College Library, *Amherst, Massachusetts, U.S.A.*
Andover, The Library of Phillip's Academy, *Brekin Hall, Andover, Massachusetts, U.S.A.*
Annandale-on-Hudson, Hoffman Library, *St. Stephen's College, Annandale-on-Hudson, New York, U.S.A.*
Ann Arbor, General Library, the University of Michigan, *Ann Arbor, Michigan, U.S.A.*
Athens, General Library, University of Georgia, *Augusta, Ga., U.S.A.*
Aurora, The Library of Wells College, *Aurora, New York, U.S.A.*
Baltimore, The Enoch Pratt Library, *Baltimore, Maryland, U.S.A.*
 " The Peabody Institute Library, *Baltimore, Maryland, U.S.A.*
Beloit, Beloit College Library, *Beloit, Wisconsin*.
Bloomington, Indiana University Library, *Bloomington, U.S.A.*
Boston, Athenaeum, *Boston, Massachusetts, U.S.A.*
 " Museum of Fine Arts, *Boston, Massachusetts, U.S.A.*
 " The Public Library, *Boston, Massachusetts, U.S.A.*

- Boulder**, The University of Colorado Library, *Boulder, Colorado, U.S.A.*
- Brooklyn**, The Brooklyn Institute of Arts and Sciences, *Brooklyn, New York, U.S.A.*
- „ The Public Library, *Brooklyn, New York, U.S.A.*
- Brunswick**, The Bowdoin College Library, *Brunswick, Maine, U.S.A.*
- Bryn Mawr**, The Library of Bryn Mawr College, *Pennsylvania, U.S.A.*
- Burlington**, University of Vermont Library, *Burlington, Vermont, U.S.A.*
- California**, Margaret Carnegie Library, Mill College, *California, U.S.A.*
- „ Stanford University Library, *California, U.S.A.*
- Carlisle**, The Library, Dickinson College, *Carlisle, Pennsylvania, U.S.A.*
- Chambersburg**, John Stewart Memorial Library, Wilson College, *Chambersburg, Pennsylvania, U.S.A.*
- Chapel Hill**, University of North Carolina, *Chapel Hill, North Carolina, U.S.A.*
- Chicago**, The Ryerson Library, Art Institute of Chicago, *Chicago, Illinois, U.S.A.*
- „ Loyola University Library, *Rogers Park, Chicago, Illinois, U.S.A.*
- „ The Newberry Library, *Chicago, Illinois, U.S.A.*
- Cincinnati**, The University of Cincinnati Library, *Cincinnati, Ohio, U.S.A.*
- Cleveland**, Adelbert College Library, *Cleveland, Ohio, U.S.A.*
- „ Cleveland Public Library, *Cleveland, Ohio, U.S.A.*
- „ Museum of Art, *Cleveland, Ohio, U.S.A.*
- Clinton**, The Hamilton College Library, *Clinton, New York, U.S.A.*
- Colorado**, Coburn Library, Colorado College, *Colorado Springs, Colorado, U.S.A.*
- Columbia**, The University of Missouri Library, *Columbia, Missouri, U.S.A.*
- Columbus**, Ohio State University Library, *Columbus, Ohio, U.S.A.*
- Delaware**, Slocum Library, Ohio Wesleyan University, *Delaware, Ohio, U.S.A.*
- Eugene**, The Library of University of Oregon, *Eugene, Oregon, U.S.A.*
- Grand Rapids**, The Public Library, *Grand Rapids, Michigan, U.S.A.*
- Greencastle**, De Pauw University Library, *Greencastle, Indiana, U.S.A.*
- Grinnell**, The Library of Grinnell College, *Grinnell, U.S.A.*
- Hamilton**, The Library of Colgate University, *Hamilton, New York, U.S.A.*
- Hanover**, The Dartmouth College Library, *Hanover, New Hampshire, U.S.A.*
- Hartford**, The Case Memorial Library, *Hartford, Connecticut, U.S.A.*
- „ Trinity College Library, *Hartford, Connecticut, U.S.A.*
- Haverford**, Haverford College, *Haverford, Pennsylvania, U.S.A.*
- Indianapolis**, Butler College, Butler University Library, *Indianapolis, Indiana, U.S.A.*
- Iowa City**, The University of Iowa Library, *Iowa City, Iowa, U.S.A.*
- Ithaca**, The Cornell University Library, *Ithaca, New York, U.S.A.*
- Jersey City**, The Free Public Library, *Jersey City, New Jersey, U.S.A.*
- Johns Hopkins University**, Welch Medical Library, 1900, *East Monument Street, Baltimore, U.S.A.*
- Knoxville**, The Library, University of Tennessee, *Knoxville, Tennessee, U.S.A.*
- Lawrence**, Watson Library, the University of Kansas, *Lawrence, Kansas, U.S.A.*
- Los Angeles**, University of California at Los Angeles, 403, *Hilgard Avenue, Los Angeles, California, U.S.A.*
- Louisville**, University of Louisville Library, *Louisville, Kentucky, U.S.A.*
- Lynchburg**, The Randolph-Macon Women's College, *Lynchburg, Virginia, U.S.A.*
- Madison, New Jersey**, Drew University, *Madison, New Jersey, U.S.A.*
- Madison**, University of Wisconsin Library, *Madison, U.S.A.*
- Michigan**, The Michigan State Library, *Lansing, Michigan, U.S.A.*
- Middletown**, The Library of Wesleyan University, *Middletown, Connecticut, U.S.A.*
- Minneapolis**, The Library of Minnesota University, *Minneapolis, U.S.A.*
- Mount Holyoke**, The Mount Holyoke College Library, *South Hadley, Massachusetts, U.S.A.*
- Mount Vernon**, Cornell College Library, *Mount Vernon, Iowa, U.S.A.*

- New Haven**, The Library of Yale University, *New Haven, Connecticut, U.S.A.*
New London, Connecticut College, *New London, Connecticut, U.S.A.*
New York, The Library of American Geographical Society, *Broadway at 156th Street, New York, U.S.A.*
 " " The Library of Columbia University, *New York, U.S.A.*
 " " Hunter College, *New York, U.S.A.*
 " " The Library, Japanese M.E. Church, 320, *West 108th Street, New York, U.S.A.*
 " " The Public Library, *New York, U.S.A.*
 " " Washington Square Library, New York University, 32, *Waverley Place, New York, U.S.A.*
Norman, University of Oklahoma, *Norman, Oklahoma, U.S.A.*
Northampton, Smith College, Library, *Northampton, Massachusetts, U.S.A.*
Norton, The Library, Wheaton College, *Norton, Massachusetts, U.S.A.*
Oberlin, College Library, *Oberlin, Ohio, U.S.A.*
Oxford, The Library of Miami University, *Oxford, Ohio, U.S.A.*
Philadelphia, The Free Library, *Philadelphia, Pennsylvania, U.S.A.*
 " The Library Company, *Philadelphia, Pennsylvania, U.S.A.*
 " The Library of the University of Pennsylvania, *Philadelphia, Pennsylvania, U.S.A.*
 " The Museum of the University, *Philadelphia, Pennsylvania, U.S.A.*
 " The Library of Temple University, *Philadelphia, Pennsylvania, U.S.A.*
Pittsburg, The Carnegie Library, *Pittsburg, Pennsylvania, U.S.A.*
Portland, The Library Association, *Portland, Oregon, U.S.A.*
Poughkeepsie, The Vassar College Library, *Poughkeepsie, New York, U.S.A.*
Princeton, The Library of Princeton University, *Princeton, New Jersey, U.S.A.*
Providence, The Library of Brown University, *Providence, Rhode Island, East Side Station, Ver., U.S.A.*
Redlands, The Library, University of Redlands, *California, U.S.A.*
Rochester, The Library, University of Rochester, *Rochester, New York, U.S.A.*
Sacramento, The California State Library, *Sacramento, California, U.S.A.*
St. Louis, Washington University Library, *St. Louis, Missouri, U.S.A.*
Schenectady, The Union College Library, *Schenectady, New York, U.S.A.*
Swarthmore, The Library of Swarthmore College, *Swarthmore, Pennsylvania, U.S.A.*
Syracuse, The Syracuse University Library, *Syracuse, New York, U.S.A.*
Texas, The Library of the University of Texas, *Austin, Texas.*
Urbana, The University of Illinois, *Urbana, Illinois, U.S.A.*
Washington, Catholic University of America, *Washington, U.S.A.*
 " The Library of Congress, *Washington, District of Columbia, U.S.A.*
 " Memorial Library, Washington and Jefferson College, *Washington, Pennsylvania, U.S.A.*
 " University of Washington Library, *Seattle, Washington, U.S.A.*
Wellesley, Wellesley College Library, *Wellesley, Massachusetts, U.S.A.*
Williamstown, The Williams College Library, *Williamstown, Massachusetts, U.S.A.*
Wisconsin, Lawrence College Library, *Appleton, Wisconsin, U.S.A.*
Worcester, Holy Cross College Library, *Worcester, Massachusetts, U.S.A.*

AUSTRIA

- Graz**, The Library of the Archaeologisches Institut der Universität, *Graz, Austria.*
Vienna, Archaeolog-Epigraph. Seminar der Universität, *Vienna, Austria.*
 " K. K. Hofbibliothek, *Wien, Austria.*

BELGIUM

- Brussels**, Musées Royaux des Arts Decoratifs et Industriels, Palais du Cinquante-naire, *Brussels, Belgium.*

CHINA

China, National Library of Peking, *Pei Hai, Peking, China, via Siberia*

CYPRUS

Cyprus, Cyprus Museum.

CZECHO-SLOVAKIA

Prague, Archaeologický ústav české University, *Brehová 3, Praha, V.*

„ The Library of the Archaeologisches Institut, Deutsche Universität
1, *Clementinum, Prague, Czecho-Slovakia.*

„ The Public and University Library, *Prague, Czecho-Slovakia.*

DENMARK

Copenhagen, Det Kongelige Bibliothek, *Copenhagen, Denmark.*

„ Library of Universitets Filologisk-Historiske Laboratorium, *Copen-
hagen, Denmark.*

EGYPT

Egypt, The Library of the Oriental Institute, *Chicago House, Luxor, Upper Egypt.*

FINLAND

Finland, Åbo, The Library of Åbo University, *Åbo, Finland.*

FRANCE

Dijon, La Bibliothèque de l'Université, *Dijon.*

Montpellier, Bibliothèque Universitaire, *Montpellier.*

Nancy, L'Institut d'Archéologie, l'Université, *Place Carnot, Nancy.*

Paris, La Bibliothèque de l'Université de Paris, *Paris.*

„ La Bibliothèque des Musées Nationaux, *Musées du Louvre, Paris.*

„ La Bibliothèque de l'École Normale Supérieure, *45, Rue d'Ulm, Paris.*

Strasbourg, La Bibliothèque de l'Université, *Strasbourg.*

GERMANY

Berlin, Archäologisches Seminar der Universität, *Berlin.*

„ Bibliothek der Staatlichen Museen, *Berlin, C. 1.*

„ Preussische Staatsbibliothek, *Berlin.*

Breslau, Königliche und Universitäts-Bibliothek, *Breslau.*

Erlangen, Universitäts-Bibliothek, *Erlangen.*

Freiburg i. Br., The Library of the University, *Freiburg i. Br., Germany.*

Gießen, Philologisches Seminar, *Gießen.*

Göttingen, Universitäts-Bibliothek, *Göttingen.*

Greifswald, Bibliothek der Universität, *Greifswald, Prussia, Germany.*

Heidelberg, Universitäts-Bibliothek, *Heidelberg.*

Jena, Universitäts-Bibliothek, *Jena.*

Kiel, Universitäts-Bibliothek, *Kiel.*

Koeln-Bayenthal, Archäologisches Institut der Universität, *Alleburger Str. 155^m,
Koeln-Bayenthal.*

Königsberg, Universitäts-Bibliothek, *Königsberg.*

Leipzig, Universitäts-Bibliothek, *Beethovenstr. 6, Leipzig, Germany.*

Marburg, The Library of the Archäologisches Seminar der Universität, *Marburg,
Germany.*

„ Universitäts-Bibliothek, *Marburg.*

Munich, Archäologisches Seminar der Königl. Universität, *Galleriestrasse 4, München.*

„ Staatsbibliothek, *München.*

Münster, Königliche Paulinische Bibliothek, *Münster i. W.*
 Rostock, Universitäts-Bibliothek, *Rostock*.
 Tübingen, K. Archäolog. Institut der Universität, *Wilhelmstrasse 9, Tübingen*.
 „ Universitäts-Bibliothek, *Tübingen*.
 Würzburg, Kunstgeschichtliches Museum der Universität, *Domerschulgasse 16, Würzburg, Bavaria*.

GREECE

Athens, The American School of Classical Studies, *Athens, Greece*.
 „ Bibliothèque Nationale, *Athens, Greece*.

HOLLAND

Leiden, University Library, *Leiden, Holland*.
 Utrecht, University Library, *Utrecht, Holland*.

HUNGARY

Budapest, Antikencabinet des Ungar. National-Museum, *Budapest, Hungary*.

ITALY

Florence, R. Biblioteca Nazionale Centrale, *Firenze, Italy*.
 Padua, Istituto di Archeologia, Regia Università, *Padua*.
 Pavia, Bib. di Gabinetto di Archeologia, dell'Università di Pavia, *Italy*.
 Sicily, Scuola di archeologia della R. Università, *c/o Anonima Libreria Italiana, Quattro Canti di Città, Palermo, Sicily*.
 Turin, Spett. Biblioteca Nazionale, *Torino, Italy*.

NORWAY

Oslo, Universitets-Bibliothek, *Oslo, Norway*.

PALESTINE

Jerusalem, École Biblique de St. Etienne, *Jerusalem*.

POLAND

Krakow, Zakład Archeologii Klasycznej, *U. J. W. Krakowia, Poland*.

RUMANIA

Czernowitz, K. K. Universitäts-Bibliothek, *Czernowitz, Bukowina, Rumania*.

SWEDEN

Lund, K. Universitets-Biblioteket, *Lund, Sweden*.
 Uppsala, Kungl. Universitetets Bibliothek, *Uppsala, Sweden*.

SWITZERLAND

Fribourg, Bibliothèque Cantonale et Universitaire, *Fribourg, Suisse*.
 Geneva, La Bibliothèque Publique et Universitaire, *Genève, Switzerland*.
 Lausanne, L'Association de Lectures Philologiques, *Boulevard de Grancy 39, Lausanne*.
 Neuchâtel, La Bibliothèque publique, *Neuchâtel, Switzerland*.
 Zürich, Zentral Bibliothek, *Zürich, Switzerland*.

YUGOSLAVIA

Yugoslavia, Universität (Archäologische Seminar), *Ljubljana, Yugoslavia*.

PROCEEDINGS

SESSION 1929-30

The following meetings were held during the past session :—

- (1) November 12th, 1929. Professor B. Ashmole : *Some Alleged Archaic Sculptures*. See below, p. lii.
- (2) February 4th, 1930. Miss Winifred Lamb : *Greek Bronzes : their Trade-Routes and Travels*. See below, p. liv.
- (3) May 6th, 1930. Miss Gertrude Robinson : *Some Pictured Grottoes of Byzantine Italy*. See below, p. liv.

- (4) The ANNUAL GENERAL MEETING was held at Burlington House on Tuesday, June 24th, 1930, the President, Professor E. A. Gardner, occupying the chair. The following elections and re-elections were made :—

Elections :—

VICE-PRESIDENTS.—Mr H. I. Bell, Professor D. S. Robertson.

MEMBERS OF COUNCIL.—Professors F. R. Earp, A. W. Pickard-Cambridge, J. A. K. Thomson.

Re-elections :—

The Vice-Presidents of the Society.

The Members of Council retiring by rotation.

The following Annual Report of the Council was then submitted by the Society's Hon. Secretary, Miss C. A. Hutton.

The Council beg leave to submit their report for the Session now concluded :—

The Main Situation.

A paragraph on the main situation has come to mean a word on finance. The word this year is that, thanks to the generosity of members and their appreciation of what membership of the Society affords them, the debt of £3000 on the lease has been paid in full. In response to letters issued £2,334 was subscribed in 1929; the rest has been since repaid out of the Society's general funds. The Council wish to place on record their appreciation of every gift, large or small, which has contributed to this happy issue.

They are also glad to record that, as the result of recent correspondence with the Inland Revenue authorities, it has been ruled that the Society's funds are not liable to income tax. This decision was reached without incurring any legal expenses.

Features of the Session.

The great event of the year 1929 was the celebration of the Society's Jubilee. As a full account of the Festival, written by the Hon. Secretary, appeared in the last part of the *Journal*, it is unnecessary to describe it here. Miss Hutton's article, which was illustrated with reproductions of the addresses contributed, has since been presented to all the delegates abroad and at home who took part in the Festival.

The Session has further been marked by the publication of the excavations conducted by the British School at Athens at the shrine of Artemis Orthia at Sparta. This fine work forms the 5th volume of the supplementary publications of the Society's *Journal*. It has been edited by Prof. R. M. Dawkins, who was in charge of the excavations. In addition to Prof. Dawkins' own contributions there are chapters by the late Guy Dickins, Prof. J. P. Droop, Prof. H. J. Rose, Mr. A. J. B. Wace and Mr. A. M. Woodward. The work contains over 200 plates, which include drawings by Mr. Walter George, Mr. de Jong, Prof. Droop and others. The book is published at five guineas, with the special rate to members of £2 12s. 6d.

The Council heartily congratulate Prof. Dawkins and the British School at Athens on the completion of this noteworthy undertaking.

The relations with the sister Society for Roman Studies continue on the friendliest footing. As the result of a recent financial conference, the Roman Society has raised its contribution to the cost of the Joint Library, and is further providing a number of much-needed books.

Obituary.

The Society has lost by death one of its most distinguished Honorary Members, Prof. Dr. Franz Studniczka. In the list of members whose loss the Society has sustained during the Session, the following names occur:—Prof. W. Rhys Roberts, a former member of the Council, Sir Herbert Warren, all but an original member of the Society and a valued friend, Prof. E. A. Soumenchein, Mr. Hugh Macnaghten, Sir Lionel Cust, Canon Swallow, Mr. Charles Whibley and Mr. Antony Collett.

Administrative Changes.

Professor Ernest Gardner, Yates Professor Emeritus of Archaeology in the University of London, has been elected President of the Society for the now statutory period of three years.

His Royal Highness the Crown Prince of Sweden has graciously accepted Honorary Membership of the Society.

The following changes in the Council are recommended for adoption:—Mr. H. I. Bell and Prof. D. S. Robertson to be Vice Presidents of the Society; Prof. A. W. Pickard-Cambridge, Prof. F. R. Earp and Prof. J. A. K. Thomson to be members of the Council.

The Society's second Librarian, Mr. W. R. Le Fanu, having been appointed Assistant Librarian of the Royal College of Surgeons, Mr. B. S. Page has been appointed to succeed him. Mr. Le Fanu had only been with us two years, but as worker and as colleague he is greatly missed. The Library has already felt the benefit of Mr. Page's scholarly attainment. Mr. Penoyre is again at work.

Meetings.

The first General Meeting was held on November 12th, 1929, when Professor Bernard Ashmole read a paper on some alleged archaic sculptures, in which he spoke of what must be considered one of the most amazing deceptions ever practised upon dealers and museums. An obscure sculptor, forming his style upon antique models without closely imitating any one of them, had been able to deceive the experts on ancient and Renaissance art not once, but time after time. Enormous sums had been paid for his works, though he himself received little, and even to-day there were scholars who believed some of them genuine. The days when a forger limited himself to copying a particular ancient piece as accurately as he could had passed. Now, he created new things in the ancient manner, and he could afford to train as an archaeologist himself, or at least to call in a consulting archaeologist in order to avoid solecisms. His success was a sharp reminder to the orthodox student that text-books, reproductions, and the opinions of other archaeologists could never be a substitute for first-hand knowledge of the antiquities

themselves. Professor Ashmole went on to show photographs of some of the pieces in question, notably of a group in which an ancient surface had been cleverly imitated by the application of acid and of extreme heat and cold. Certain errors, he claimed, had been committed by the forger in his imitation of fractures. Enlarged photographs demonstrated that most of the work had been done with the running drill, an instrument not employed by the Greeks until some sixty years after the date at which the group was alleged to have been made. He concluded by reading extracts from the letter of a trustworthy witness who had penetrated the workshop of the forger and had seen ancient and Renaissance marbles in various stages of manufacture.

The President and Sir Cecil Harcourt Smith took part in the subsequent discussion.

The second General Meeting of the Session was held on February 4th, 1930. At this meeting the President said a few words in honour of the late Professor Dr. Franz Studniczka, one of the Society's Honorary Members. After the Treasurer had drawn the attention of the meeting to the recent publication of *Artemis Orthia*, Miss Winifred Lamb read a paper on the trade routes and travels of Greek bronzes. They could not, she said, expect Greek bronzes to give as much information concerning the routes of Greek commerce as pottery or coins, but in some respects these contributed to and modified what they knew already. To obtain reliable results, they must use as evidence only those bronzes which came from towns and settlements, and exclude votive bronzes from shrines. The methods used for identifying the home of certain groups of bronzes had to be examined; in particular, some fresh evidence was given for locating two important classes at Corinth.

Among the bronze-making centres which had foreign markets, the first to be considered was Cyprus in the eleventh and ninth centuries: the next Sparta, which had a surprising number of foreign customers in the sixth century. Corinth too started a flourishing export trade in the sixth century, enlarged its connexions by including South Italy and South Russia, and held the market till the end of the fourth. At this period South Italy came to the fore and succeeded in distributing its bronze wares over a large part of the area round the Mediterranean and the Black Sea. Typical products of these four centres, and of some others, less important, were described.

The lecture ended with some remarks on the travels of isolated bronzes: these, though useless for trade connexions, were interesting for their own sake.

The President and Professor Bernard Ashmole having offered observations, the meeting thanked Miss Lamb for her interesting paper.

At the third General Meeting, which was held on May 6th, 1930, a paper was read by Miss Gertrude Robinson on the pictured grottoes of Byzantine Italy, especially those of the Terra d'Otranto, where Byzantine influence was strongest and lasted longest.

The lecture, which was illustrated by slides, began with a short sketch of the geographical characteristics of the Terra d'Otranto, and a survey of its prehistoric remains and the legends which were closely connected with the historical development and present characteristics of its people. The south of Italy, and especially the Terra d'Otranto, was the home of the Byzantine Rite, which prevailed there until the end of the eleventh, and persisted till the middle of the seventeenth century. Traces of this are still to be found. To this Rite are due some of the most interesting remains of South Italy, namely, the Byzantine churches and monasteries, and more particularly the frescoed cave-chapels belonging to the lauras of Greek and Oriental monks which are to be found cut in the rock all over the country.

Some of the frescoes of these cave-chapels show the influence of Syrian art, but the frescoes are for the most part those of artists of the Byzantine school, and their art was derived from Constantinople.

Unfortunately, owing to ignorance, neglect, and the general want of interest taken in them, these unique monuments of a deeply interesting chapter in the history of Italy are fast disappearing, and will soon be lost unless some steps are taken for their preservation.

In the subsequent discussion, observations were offered by Prof. Marshall, Mr. Bell and Mrs. F. W. Hasluck.

The Joint Library and Slide Collection.

To illustrate the work of the past Session, figures are given showing the activities of the Library during (a) a pre-war Session, (b) the last Session, and (c) the Session just concluded.

	(a) 1912-13	(b) 1928-29	(c) 1930-31
Books added to the Library	480	535	502
Books borrowed	938	3,219	3,424
Slides added to the Collections	303	303	236
Slides borrowed	5,578	9,774	11,358
Slides sold	306	1,467	1,069
Photographs sold	345	367	399

All members of the Society will be glad to learn that, by the generous action of the Carnegie Trustees, a substantial addition will be forthcoming to the sum available for the purchase of books.

This help could come at no more happy opportunity. When the Catalogue of the library was compiled six years ago, the books were for the first time arranged in a subject order, with the view, as stated in the preface, of ascertaining the more outstanding defects on the shelves. Shortly afterwards, however, the Library was transferred to Bedford Square, and in the cost and labour of designing its new home, though much was done in perfecting the library system, and above all in creating a cadre capable of absorbing any subsequent extension, no systematic attempt to fill the gaps on the shelves was possible. But in the meantime the Society, by the steady growth in the number of its members and student associates and by the generous way in which the sister society for Roman Studies has shouldered its share of upkeep, has been year by year improving in its finances and in its general stability. The Council feel that the time has come when the general prosperity of the Society should be shared in greater degree by the Library, and have therefore recently appointed a Committee to advise on the choice of books for purchase. The members of this Committee are Mr. N. H. Baynes (Chairman), Miss Winifred Lamb, Prof. A. D. Nock, and Mr. F. N. Pryce.* To facilitate their labours a complete bibliography of *libri desiderati*, based on the Library catalogue which was cut up and distributed in sections for the purpose, has been prepared at the Librarian's suggestion, by some 70 specialists, whose co-operation the Council sincerely appreciate.

With an expert Committee, a very competent Librarian, a good working bibliography, and the hope, as stated above, of substantial addition of funds for purchase, the prospects of the joint Library were assuredly never in better case.

The following are among the most interesting of the works added to the Library:—

Braun-Bruckmann, *Denkmäler der griechischen und römischen Skulptur* (the magnificent gift of Mr. Macmillan); The British School at Athens, *Artemis Orthia*; J. L. Myres, *Who were the Greeks?* F. Nock, *Eleusis*; G. M. A. Richter, *The*

* A similarly constituted Committee nominated by the Council of the Roman Society has been in existence for some time, and has rendered invaluable service to the joint Library by the purchase of books dealing with Roman studies.

Sculpture and Sculptors of the Greeks; the volume entitled *Antike Plastik* collected to commemorate Dr. Anselung's sixtieth birthday; W. Lamb, *Greek and Roman Bronzes*; the edition of the *De Anima* of Aristotle, by R. D. Hicks (from Miss Alford); Mommsen and Marquardt, *Manuel des Antiquités romaines* (20 volumes, a generous gift from Mr. Last); S. B. Platner and T. Ashby, *Topographical Dictionary of Ancient Rome*; T. Hodgkin, *Italy and her Invaders* (kindly presented by Dr. P. E. Matheson); Sir James Frazer's monumental edition of *Ovid's Fasti*; the late F. W. Hasluck's *Christianity and Islam*; and Mrs. Buckler's study of *Anna Comnena*.

In addition to the above, the Library copy of Iwan Müller's great handbook has been brought up to date by the purchase of some 15 volumes of the more recent editions.

The two Councils wish to express their sincere thanks for gifts of books to the following:—

Authors: Miss M. Alford, Prof. Andréadès, Mr. St. Clair Baddeley, Prof. J. Bidez, Prof. C. P. Bill, Mr. Edmond Bolland, Prof. Pickard-Cambridge, Mr. A. Casperz, Mr. E. Cesareo, Prof. V. Gordon-Childe, Prof. A. Diès, Prof. J. Wight-Duff, Dr. J. K. Fotheringham, Mr. E. H. Freshfield, Habib A. Gazalé Bey, Dr. J. Gennadius, Dr. Heinrich Horn, Prof. W. Jaeger, Miss C. K. Jenkins, Prof. A. D. Keramopoulos, Rev. T. S. Lea, Prof. Lethaby, Dr. E. Loewy, Mr. A. P. McMahon, Prof. B. D. Merritt, Dr. A. N. Modona, Prof. F. Noack, Prof. H. C. Nuttin, Dr. G. P. Oikonomos, Dr. Oswald, Rev. E. Power, Miss E. R. Price, Mr. O. W. Reinhardt, Mr. T. A. Rickard, Mr. M. Sègre, Dr. A. Severyna, Mr. G. H. Stevenson, Prof. Studniczka, Dr. Van Easen, Mr. M. E. P. Voufieriades, Dr. Adolf Wilhelm, Mr. W. J. Woodhouse, Sir George Young, Mr. P. Zancan.

Donors of Miscellaneous Works: Miss M. Alford, Prof. B. Ashmole, Mr. A. B. Lloyd-Baker, Prof. Bozanquet, Mrs. Buckler, Mr. A. R. Burn, Prof. Nunzio Coppola, Mrs. Culley, Prof. R. M. Dawkins, Dr. A. Feldmann, Mr. C. Geryannus, H.E. the Greek Minister, Principal W. R. Halliday, Dr. G. F. Hill, Mr. A. S. Hopkinson, Miss Hutton, Miss W. Lamb, Mr. H. M. Last, Mr. A. W. Lawrence, Prof. J. E. Lloyd, Mr. J. McIntyre, Mr. George A. Macmillan, Dr. P. E. Matheson, Mrs. J. E. Matthews, Mr. W. Miller, Dr. and Mrs. Grafton Milne, Mr. A. Morancé, M. Léon Reinach, Mr. F. Richards, Sir Ronald Storrs, Miss Taylor, Mr. M. N. Tod, Dr. Paul Wolters, Prof. F. de Zulueta.

The Presses of the following Universities: Cambridge, Catholic University of America, Chicago, Columbia, Harvard, Illinois, Johns Hopkins, New York, Oxford, Toronto, Wisconsin.

Institutions and Associations: The American School at Athens, the American Academy in Rome, the British Academy, the Trustees of the British Museum, the Association Guillaume Bude, the Mediaeval Academy of America, Services des Antiquités de l'Égypte, the German Archaeological Institute, the Römisch-Germanische-Kommission, the Hague Ministère de l'Instruction, the Director-General of Archaeology of India, the Kanovium Excavation Association, the Société des lettres de Lund, the Metropolitan Museum of New York, Deutsche Gesellschaft d. Wissenschaften u. Künste für die Tschechoslowakische Republik, the Institute of Roman Studies, and the Director of the Valetta Museum.

The following Publishing Houses:—Messrs. Allen and Unwin, Edward Arnold, Ashendorn, George Banta, G. Bardi, B. T. Batiford, C. H. Beck, Ernest Benn, H. Bittner, Basil Blackwell, E. de Boccard, H. Böhlau, Boivin et Cie, Bowes and Bowes, F. Bruckmann, H. Champion, Chatto and Windus, F. Cohen, Peter Davies, J. M. Dent, Dieterich, W. Engelmann, B. Fibser, G. Fischer, G. E. C. Gad, P. Gentlmer, C. W. K. Gleerup, Walter de Gruyter, Gyldendalske Boghandel-Nordisk, Hachette & Co., G. G. Harrap, O. Harrassowitz, D. C. Heath, J. C. Hinrichs, Hodder and Stoughton, U. Hoepli, H. Keller, W. Kohlhammer, R. Lerche, E. Leroux, Macmillan & Co., M. & H. Marcus, F. Meiner, Methuen, H. Milford,

J. C. B. Mohr, Eyeleigh Nash and Grayson, R. Oldenbourg, G. B. Paroia, H. J. Paris, Kegan Paul, Payot, "Radio" Trapani, R. M. Rohrer, G. Routledge, H. Schoetee, J. Springer, Taussig and Taussig, B. G. Teubner, A. Töpelmann, Graefe and Unzer, Vallecchi, G. Vanoest, Weidmann, Wettergren and Kerber, C. Winter.

In the slide and picture department the following gifts have been received :—

From Mr. Frank Gearing, the valuable negatives of the classical collections at Lewes House. Professor Ashmole and Professor Beazley have kindly consented to write the catalogue of these.

From Mr. F. W. Felkin, an interesting set of original drawings of Mycenae by the well-known war correspondent Melton Prior. Mr. Felkin also presents a medal of George IV by Pistrucci, with a Greek inscription.

From Mrs. Noel, off-copies of some of the plates to the large work on Argina by C. R. Cockrell, the donor's grandfather.

Two new sets of slides are being added to the now large collection of stereotyped lectures for the lantern. The first is a sketch of the prehistoric antiquities of Malta by Mrs. H. O. Clogston, a member of the Society resident in the island. The second deals with the Roman soldier, and is by the Rev. H. H. Symonds. The sets of slides are increasingly used, and it may interest members to have the complete list of subjects appended.

Greek :

The Prehellenic Age (no text).
 †Early Malta (N. S. Clogston).
 The Geography of Greece (A. J. Toynbee).
 Ancient Athens : historical sketch (S. Casson).
 Ancient Athens : topographical (annotated list of slides only, D. Brooke).
 Ancient Architecture (D. S. Robertson).
 Greek Sculpture (J. Penoyre).
 The Parthenon (A. H. Smith).
 Greek Vases (M. A. B. Braundholtz).
 A Survey of early Greek Coins : 7 slides showing 49 coins (P. Gardner).
 Some Coins of Sicily (G. F. Hill).
 Greek Papyri (H. I. Bell).
 Olympia and Greek Athletics (E. N. Gardiner).
 Xenophon : the expedition of Cyrus and Xenophon's Anabasis (annotated list of slides only, by A. W. and B. I. Lawrence).
 Alexander the Great (D. G. Hogarth).
 The Travels of St. Paul (no text).
 The Ancient Theatre (J. T. Sheppard).
 Ancient Life, Greek (annotated list of slides only, J. Penoyre).

Roman :

Ancient Life, Roman (annotated list of slides only, J. Penoyre).
 Rome (H. M. Last).
 The Roman Forum (G. H. Hallam).
 The Roman Forum, for advanced students (T. Ashby).
 The Palatine and Capitol (T. Ashby).
 The Via Appia (R. Gardner).
 The Roman Campagna (T. Ashby).
 Roman Portraiture (Mrs. S. Arthur Strong).
 Horace (G. H. Hallam).
 Pompeii (A. van Buren).
 Ostia (T. Ashby).
 Ostia (R. Meiggs).
 Sicily (H. E. Butler).
 The Roman Rhone (S. E. Winbolt).
 Tingad (H. E. Butler).
 Roman Britain (Mortimer Wheeler).
 The Roman Wall (K. G. Collingwood).
 †The Roman Soldier (H. H. Symonds).

The sets consist of about 50 carefully selected slides and the cost of hire, including the text and postage to members, is 7s. 6d.

† In preparation.

The Catalogue of the Virtue Tables collection of electrotypes was published in *J.H.S.*, XLIX., p. lxxxix. The charges for the loan of these are the same as for the slides, 2d. each. Copies of the Catalogue can be had on application.

Finance.

The members of the Society now number 1436 and the Student Associates 178. The subscribing Libraries now total 318.

The year under review must be regarded as highly satisfactory from a financial point of view. The appeal for the Jubilee Fund for the extinction of the balance of the outlay on the Library premises has been so heartily supported that donations have been received amounting to £2334.

In the Income and Expenditure account an increase will be noted in the upkeep of the Society's premises. This is practically all accounted for by builders' charges in connexion with alterations to defective heating apparatus. Another heavy item this year has been the cost of what we may call the Jubilee number of the *Journal*. As it happens, receipts from the sale of the *Journal* are less for the year, but this was only to be expected, as the previous year established a 'record' in the sale of back volumes, which could not be expected to be maintained.

Receipts from subscriptions from both members and Student Associates show a welcome increase.

The net result of an abnormal year is a deficit of £388. There is no doubt, however, that the charge in the accounts for the *Journal* will be reduced by at least £300-£400, and the special Festival expenses will not recur. It must also be noted that the Roman Society have agreed to increase their contribution by £120 a year for the next three years. There is every prospect that the ordinary financial aspect of the Society's work will appear in a favourable light for the near future.

The Society has, however, to meet the cost of the publication of the excavations of Artemis Orthia. As publication could not be effected till the early part of 1930, both expenditure and receipts in 1929 have been carried forward. It is too early yet to say what the final financial result of this publication will be, but the sale has so far been encouraging, and it is hoped ultimately to get back the greater part if not all of the outlay. The charge may fall somewhat heavily on the Treasury for a year or two, but in the meantime it is agreed, both at home and abroad, that the volume is worthy of the British School at Athens and effectively promotes the studies for which the Hellenic Society exists.

The above report was seconded by Sir James Frazer and carried unanimously.

The President then delivered his Address, taking for his subject 'Recent Additions to our Knowledge of Ancient Sculpture,' whether by new discoveries or by new studies of works that were already known. The most important of the new discoveries was a bronze statue of a bearded god, found in the sea off Cape Artemision (Cf. Beyen, *La Statue d'Artemision*, Hague, Nijhoff, 1930). It must, like the bronze athlete from Corigotto, have come from the wreck of a ship carrying the spoils of Greece to Italy; but in this case the ship must have been on its way from northern Greece, probably Macedonia or Thessaly, and therefore the origin of the statue should probably be sought in that region. The god was represented as striding vigorously forward, his left arm and fingers stretched out in front, his right hand holding some object now lost, evidently a weapon. It had been disputed whether this weapon was a trident or a thunderbolt; and that implied the question whether the god represented was Poseidon or Zeus. Examples were fairly numerous in which either of these gods was represented in a similar attitude. The somewhat rugged and picturesque type seemed to suit Poseidon better, especially the hair with its rich and heavy masses. It might not be easy to distinguish the types of Zeus and Poseidon at this period, after the manner in which they were admirably

distinguished for a later age in Brunn's *Götteridealen*. The date of the statue, from its style, must be about 470-460 B.C.; and an original bronze of this period was an immense acquisition; for a large-size representation of a god of the same period there was the well-known head of Apollo at Chatsworth.

The style of the statue had been much discussed; it had been compared on the one side to Aristogeiton in the Tyrannicide group, on the other to the series of works related to the Choiseul-Gouffier Apollo. It showed, however, considerable difference from either, and if it was of Thessalian origin, it might belong to a local school. In any case it ranked among the finest bronze originals which we possess.

With the statue had been found other bronzes, a very fine and spirited horse, of thoroughbred type, perhaps a Thessalian race-horse, apparently of fifth-century work; and a jockey, of the Hellenistic age, which, if it must be connected with the horse, was certainly a later addition.

Among recent contributions to the study of known works might be specially mentioned Dr. Praschniker's work on the metopes of the Parthenon. Dr. Praschniker showed that those on the north, east, and west sides of the temple were not, as is commonly stated, damaged by weathering or target practice, but deliberately chiselled away. He also, by a minute study of the extant traces, had recovered much of the original compositions (*Cf. C. Praschniker, Parthenonstudien*, Vienna, Filser, 1928).

A new and detailed study of the famous Nike 'Parapet' by Professor Carpenter had led him to distinguish the hands of six different masters in the sculptures; an interesting point was that he identified one of these, apparently on good grounds, with Paeonius, who made the Victory at Olympia.

Miss Richter had published a statue of Protesilaus recently acquired by New York, and from this and a statue long known in the British Museum the whole figure had been reconstituted; the figure in the British Museum was of better execution, and preserved the pedestal with the prow of a ship. The youthful warrior was represented as charging down from his ship on to the Trojan shore. He became a popular hero in north Greece. The original work must have belonged to about the middle of the fifth century; its resemblance to the early Niobids was noted, especially in the drapery. The original had no doubt been in bronze; and the two copies supplemented each other in various details.

Mr. Macmillan, Sir Cecil Harcourt-Smith and Mr. Penoyre joined in the subsequent discussion, and the Meeting closed with expressions of thanks to the President for his Address.

BALANCE SHEET. DECEMBER 31, 1929.

Liabilities.		Assets.	
To Debts Payable.....	£ s. d.	By Cash in Hand—Bank	£ s. d.
“ Subscriptions paid in advance	200 10 1	Assistant Treasurer	28 10 10½
“ Endowment Fund	100 0 0	Petty Cash	62 12 6½
(includes legacy of £300 from the late Canon Adam Farrar and £200 from the late Rev. H. F. Tozer)		“ Debts Receivable	91 3 5
“ Life Compositions and Donations—		“ Investments	381 16 5½
Total at Jan. 1, 1929	2419 4 0	“ Library Premises Account—	3647 0 0
Received during year	38 17 0	Balance brought forward, Jan. 1, 1929 ...	2764 16 8
		Less Donations received during year	
		(Unliffe Fund)	2334 4 3
Less carried to Income and Expenditure Ac- count—Members deceased.....	2458 1 0	Add Expenses incurred.....	430 12 5
			57 7 7
Received in advance for sales of ‘Artemis Ortilia,’ carried forward.....	2340 9 0	Less proportion carried to Income and Expenditure Account	488 0 0
			23 0 0
		Valuations of Stocks of Publications	465 0 0
		“ Library.....	347 4 0
		Paper in hand for printing Journal	350 0 0
		Expenditure on ‘Artemis Ortilia,’ carried forward	49 0 0
		Balance—Deficiency at January 1, 1929 ...	1012 19 10½
		Add Balance from Income and Ex- penditure Account	74 3 11
			387 28 11
		Balance—Deficiency at December 31, 1929	452 2 10
			£5793 6 7

Examined and found correct.

(Signed) C. F. CLAY.
W. E. F. MACMILLAN.

INCOME AND EXPENDITURE ACCOUNT. FROM JANUARY 1, 1949, TO DECEMBER 31, 1949.

[illegible]

5 + 18237

1328 4 5

* JOURNAL OF HELLENIC STUDIES' ACCOUNT. FROM JANUARY 1, 1929, TO DECEMBER 31, 1929.				Cr.
Dr.				
To Printing and Paper. Vol. XLIX.....	£	s.	d.	
" Plates	770	3	6	
" Drawing and Engraving	551	0	0	
" Editing and Reviews	69	9	1	
" Packing, Addressing, and Carriage to Members	104	0	6	
	180	4	5	
	<hr/>			
	£1283	17	6	

LANTERN SLIDES AND PHOTOGRAPHS ACCOUNT. FROM JANUARY 1, 1929, TO DECEMBER 31, 1929.		Lxi	
To Slides and Photographs for Sale.....	£ s. d.		£ s. d.
" Slides for Hire	75 0 0		
" Photographs for Reference Collection	14 10 8		
" Balance to Income and Expenditure Account.....	0 4 0		
	114 13 6		204 1 4
	<u>£109 0 8</u>		4 10 4
		By Receipts from Sales and Hire	
		" " Sale of Catalogues, &c.....	
			<u>£109 0 8</u>

LIBRARY ACCOUNT. FROM JANUARY 1, 1929, TO DECEMBER 31, 1929.		Lxi	
To Purchases	£ s. d.		£ s. d.
" Binding	28 9 9		
	22 0 0		
	<u>£50 10 3</u>		
		By Received for Sales of Catalogues, Duplicates, &c.....	0 9 6
		" Balance to Income and Expenditure Account	50 0 9
			<u>£50 10 3</u>

SUPPLEMENT NO. VII.
TO THE
SUBJECT CATALOGUE* OF THE JOINT LIBRARY

PERIODICALS

Die Antike, Zeitschrift für Kunst und Kultur des klassischen Altertums. From vol. i (1925).

11½ × 8½ in. Berlin and Leipzig. *In Progress*.

Archaeologisch-Epigraphische Mittheilungen aus Oesterreich, vols. 1-20 (all published). Vienna, 1877-97.

Bollettino d'Arte del ministero della pubblica istruzione. From vol. ix. 11½ × 8½ in. Milan and Rome. *In Progress*.

Budé Bulletin: Supplément critique au bulletin de l'association Guillaume Budé. From vol. i (1929).

10 × 6½ in. Paris. *In Progress*.

Byzantinisch-neugriechisches Jahrbuch: Beihefte.

1. Die Inschriftenaufzeichnung des Kodex Smaiticens Graecus 508(976) und die Maria-spiliviotissa-klosterkirche bei Sille (Lykaonien). By N. A. Bees. 1922.

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| 04400 | Map showing Greek colonial expansion (Bromsted, <i>Ancient Times</i> , p. 288). |
| 04768 | Map of the Empires of Alexander's successors in 3rd cent. B.C. |
| 04764 | " " " " 2nd cent. B.C. (Bromsted, <i>Ancient Times</i> , p. 448). |
| 04766 | Expansion of Roman power in Italy illustrated by four successive maps (Bromsted, <i>Ancient Times</i> , p. 516). |
| B5135 | Map of Roman Empire, 69 A.D. |
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C4770 Byzantine protocol of Fl. Strategus in the hitherto unrecd 'perpendicular writing' (*Ox. Pap.* 18, pt. 3 and p. 269).

C4771 *Id.* Transcription.

C4772 A recruit's letter home from Ostia, 2nd cent. Found at Karanis (Kôm Ushâm) by Univ. of Michigan Exped., 1926.

C4773 *Id.* Translation (H. I. Bell).

C4650 Letter from Apollonius to Zenon, 254 B.C. (B.M. Pap. No. 2653).

C4651 Census register 1st half first cent. A.D. (B.M. Pap. No. 2248 R.).

C4652 Latin waxed tablet. A birth certificate, 128 A.D. (Pap. Michigan, No. 766).

Magical Papyri. Facsimiles of 3 columns of Papyrus Oxyrrhina No. 1. This papyrus gives a collection of love and other charms and is decorated with figures of magic-working genii, etc.

C4644 Pap. Oxl. No. I, Col. i (Estren, *Pap. Oxl. fasc.* 1, pt. 1).

C4645 Pap. Oxl. No. I, Col. ii (*Id.* pt. 2).

C4646 Pap. Oxl. No. I, Col. iii (*Id.* pt. 3).

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C4648 Pap. Oxl. No. I, Col. vii (*Id.* pt. 7).

B9695 Codex Virgilianus: sheet showing Georg. iii 46-72, the text has commentary by Servius and marginal notes in Petrusch's handwriting. Ambrosian Lib. Milan.

B9696 Codex Virgilianus: Illuminated frontispiece.

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C4640 Part of large amphora in 'Palace Style' showing shields and spirals with rosettes, from west front of Palace, Knossos (Evans, *Palace*, iii, p. 311, fig. 199).

C4632 Ceiling pattern in painted stucco relief (Evans, *Palace*, iii, pl. 13).

C4634 Miniature frescoes of seated ladies on grand stand (Evans, *Palace*, iii, pl. 17).

C4635 Bull-catching scene painted on back of crystal plaque (*Id.* pl. 19).

C4636 Painted stucco relief of head of charging bull, from West Portico of N. Entrance Passage (Evans, *Palace*, iii, p. 173, fig. 116).

C4639 Smaller shield fresco from early palace of Tiryns: as restored by Rodenwaldt (Evans, *Palace*, iii, p. 304, fig. 197).

C4642 Chryselephantine figurine of boy-god: (Evans, *Palace*, iii, p. 451, fig. 314).

C4643 Group of boy-god adoring Goddess: restored drawing (Evans, *Palace*, iii, p. 456, fig. 315).

C4605 Minoan ivory: goddess between two beasts. Minot el Ametla.

C4281 Steatite vase, procession of youths (Hall, *Bronze Age*, fig. 37).

C4637 Acrobat between horns of bull on steatite 'rhyton' from Hagia Triada (Evans, *Palace*, iii, p. 224, fig. 187).

Eastern Contacts

- 04325 Treasuries, seated figure of a man, probably Kur-lil (Gadd, *U.S.*, pl. 13).
 04602 Bearded head. Ur.
 04601 Figurines of women with birds' heads.
 04603 Beliefs in shell from Ur : dairy farm and herds.
 04322 Dagger and sheath from Ur in gold and lapis lazuli (Gadd, *U.S.*, pl. 7).
 04603 Standing ram and tree. Gold silver and shell, Ur.
-
- 04604 Persian bronze-age pottery : bird and hyanna.
-
- 04481 Assyrian relief : army crossing river.
 04482 " " " "
 04274 Sums, frieze of lions in relief (Sartre, *Konst d. alten Persien*, pl. 39).
 04463 Sums, moulded frieze : horned and winged lion griffin (Rostovtzeff, *Greece and Orient*, pl. 44).
 04464 Behistun, detail of relief of Darius and rebels.

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- 64524 Angle of Etruscan temple with terracotta decoration (*Die Antike*, iv, pl. 26).
 64628 Byzantine capital from Stobi.

Solution.

1871

- 04300 Fragments of statues from porous pediments. *Aerop. Mus. Cat.*, pp. 74, 75.
 04307 Pedimental relief, with female figure in the round. *Aerop. Mus. Cat.*, p. 69.
 04400 Limestone sphinx: 2 views (*Acropolis Orthia*, pl. 73).
 04520 Archaic head and forequarters of a horse. *Aerop. Mus. No.* 697.
 04521 Early attic female statue. Berlin (*Die Antike*, II, pl. 1).
 04522 " " " back view (*id.* pl. 2).
 04404 An early "Apollo." Munich, Glyptothek.
 04504 Marble head in style of the tyrannicide group (Heyen, *Le statue d'Artemision*, pl. 6).
 04309 Dolphin, metope from Sicyonian treasury: Europa on bull (Poulsen, *Delphi*, p. 76, fig. 19).
 04744 Etruscan funerary stele of Laris Adinias, 6th cent. b.c. Florence (Rostovtzeff, *Rome*, pl. 3, II).

Fifth and Fourth Centuries, B.C.

- 64506 Parthenon metope "East 11." Drawing of remains (Praschniker, *Parthenon*
antiken, pl. 24).
 64507 *Id.* restoration (fig. 128).
 64508 Parthenon metope "East 12." Drawing of remains (*Id.* pl. 25).
 64509 *Id.* restoration (*Id.* fig. 129).

The W. frieze of the Parthenon in situ. 6 slides showing (above) the condition of the marble at the time of Lord Elgin's mission, (below) their deteriorated condition today.

The references are to the numbering of the W. frieze in Michaelis, *Der Parthenon*.

- | | |
|-------|---------------------|
| C4616 | Michaelis v. 9, 10. |
| C4618 | " viii, 15. |
| C4620 | " ix, 10, 17. |
| C4617 | " xii, 22-24. |
| C4618 | " xiii, 25. |
| C4615 | " xiv, 26, 27. |

- 04480 Headless draped female figure with traces of a young figure standing by her side.
From the Acropolis (Ant. Douk. 2, pl. 22).
- 04479 Female head, also from the Acropolis, probably belonging to the above (Jaeger.
Hefte, 16, p. 121).

- C4291 *Mausoleum restored, after Pontremoli* (Rostovtzeff, *Greece and Orient*, pl. 86, fig. 1).
 C4325 " " after Kriechen (*Die Antike*, iv, p. 275).
 C4457 *Hermes of Praxiteles*.
 C4488 Lady wearing chiton and himation. Dresden, Albertinum.
 C4622 Draped female figure possibly a goddess found at Butrinto (Butrintus).
 C4513 Statue of *Proteus*, front view (*Met. Mus. Studies*, I, 2, fig. 2).
 C4514 " " side view (*id.*, fig. 3).
 C4515 " " head (*id.*, fig. 15).
 C4516 " " head, side view (*id.*, fig. 18).
 C4517 " " the B.M. torso (*id.*, fig. 8).

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- C4931 *Aphrodite*, Hellenistic statuette from Crete.
 B8014 *Bellona*[?]. Head of.
 C4920 *Heracles*, the Torso Belvedere. Vatican.
 B8018 *Nike*, Alabaster medallion. Rome, new satanomb (1930).

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 C4299 Two of the above reliefs on a larger scale (early water colour drawing).
 C4753 Altar from Oatis: *Minutus* and *Remus*. Mus. Terme (Rostovtzeff, *Roma*, pl. 5, 1).
 C4341 Legionary soldier: sketch of monument of C. Valerius Crispus. Wiesbaden Mus. (*Companion to R. Studies*, p. 470, fig. 41).
 C4623 Greco-Buddhist head from Jellalabad, three-quarter face to R.
 C4624 " " " " full face.
 C4625 Greco-Buddhist statue of Flora. Afghanistan.
 C4626 Greco-Buddhist head of a satyr. Afghanistan.

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 C4757 *Alexander the Great*: portrait statue from Magnesia. Constantinople Mus.
 C1753 *Attalus I* of Pergamon, head of. Berlin Mus. (Rostovtzeff, *Greece and Orient*, pl. 82).
 B8015 *Augustus*, head of, from Butrinto (Butrintus).
 B9080 *Commodus*, youthful portrait bust. Mus. Cap. (Dohrnack, *Antike Porträts*, pl. 48).
 B9005 *Rhoemetalkes* of Bosphorus. Ath. Nat. Mus.
 B9076 Trajan, bust, B.M.
 B9060 *Verus*, *Lucius* [?]. Bust at Copenhagen. No. 706.
 B9243 Male portrait head of the late Republican period (2 views). Dresden, Albertinum.
 B9074 Terracotta Republican portrait head (3 views). Boston Mus. (Dohrnack, *Antike Porträts*, pl. 31).
 B9244 Male portrait head of a Roman of the late Republican period. Mus. Vat.
 B9245 Roman lady of the late Republican period. 'Servilia' (Ny Carlsberg Mus., *Bildhauerk.*, pl. 49, No. 602).
 B9242 Bronze head of a Flavian. Naples Mus.
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 B9070 " " " " Vienna (Schneider, *Album*, pl. 16).
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 C4427 " " " " " " back view.
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 C4438 Hydria. B.M. (cf. Lamb, *Bronzes*, pl. 58).
 C4435 Hydria with figure in relief from Oxyzis.
 C4437 Hydria at Athens (Lamb, *Bronzes*, pl. 71).
 C4439 Hydria with figures in relief from Telos.
 C4775 3 archaic statues of Athena Promachos from Athens (Central piece = Lamb, *Bronzes*, pl. 37a).
 C4446 Lakonian mirror handle from Vonitza. Berlin.
 C4448 " " " " Cyprus.
 C4440 Mirror handle from Amyklæ (2 views).
 C4441 Archaic figure of Hermes (Lamb, *Bronzes*, pl. 29).
 C4444 Archaic Arcadian Hermes. Boston.
 C4445 Archaic Arcadian bronze statuette of Heracles. New York (2 views).
 C4447 Statuette of a striding athlete signed by Hybristas (Lamb, *Bronzes*, pl. 32a).
 C4449 Archaic girl athlete from Dodona (Lamb, *Bronzes*, pl. 33).
 C4450 Artemis from Dodona.
 C4451 Girl athlete from Albania (Lamb, *Bronzes*, pl. 33).
 C4610 Bronze ephebos from Selinus.
 C4611 " " " " head.
 C4776 Girl spinning (Lamb, *Bronzes*, pl. 55b).
 C4502 Bronze statue of a god from Artemision (Heyen, *Le statue d'Artemision*, pl. 2).
 C4501 " " " " the head (*ibid.* frontispiece).
 C4503 " " " " 2 views of the head (*J.H.S.* 49, pl. 8).
 C4503 " " " " the arms (Heyen, *op. cit.*, pl. 3).
 C4510 Forepart of bronze horse found with the bronze god at Artemision.
 C4511 Bronze boy, found with the bronze god at Artemision.
 C4512 " " " " " " head.
 C4761 A Hellenistic ruler: bronze heroic figure leaning on spear (Rostovtzeff, *Greece and Orient*, pl. 88, iii).
 C4762 Bronze statue of a negro boy (Rostovtzeff, *Greece and Orient*, pl. 88, iv).

Etruscan Bronzes.

- C4500 The Capitoline wolf.
 C4742 Large bronze situla with frieze in relief. Found near Bologna (Rostovtzeff, *Rome*, pl. 2, ii).
 C4609 Archaic Etruscan bronze warrior. d'Hendecourt collection.

- 04740 Bronze statue of a warrior, or of Mars (Rostovtzeff, *Rome*, pl. 3, iv).
 04741 Figures forming handle of a Praenestine cista (Rostovtzeff, *Rome*, pl. 1).
 04442 Etruscan bronze nude female figure (2 views).

Terracottas.

- 04104 Terracotta statuette: a negro child asleep beside his wine jar. Ashmolean (cf. Lawrence, *Later Greek Sculpture*, pl. 3(a)).
 04103 Terracotta statuette of comic actor. Met. Mus. New York.

Vases.

- 04396 Large Dippylos amphora with friezes of chariots and warriors.
 04760 'Phaleron' crater (Jahrb. 22, pl. i).
 04768 Id. detail: driver and chariot (id. p. 79, fig. 2).
 04767 Archais crater from Thales (Jahrbuch. 2, pl. iv).
 04480 Molded pithos with combat and chariot scenes in relief (*Artemis Orkés*, pl. xv).
 04306 B.F. Cabaire vase, a bridal procession (*J.H.S.*, 23, p. 137).
 04283 B.F. vase: the ghost of Patroclus. B.M. No. B. 249.

Painting.

- 04751 Etruscan fresco scenes in a paradise (Rostovtzeff, *Rome*, pl. 4, i).
 B8017 Greco-Egyptian portrait inscribed Hermione. Orlon.
 B8016 Pompeii: fresco, flower piece.
 B5118 Silchester, painted pattern on wall plaister: restored (cf. Haverfield, *Romanisation*, 1912, fig. 11).
 04473 Anagni, Byzantine, fresco in church.
 04475 Rome, Lateran: chapel of S. Venanzio: mosaic of four saints.
 04477 Fresco in soffit of arch: a saint.

Coins.

Towns, districts, etc.

- 04532 Achaean and Etruscan Leagues, A.
 B8368 Anazarbos and Tarsos: hemigramme (crowns).
 B8575 Antioch. 20 B.C. and 5 A.D. A.
 B8571 " 5 B.C.-5 A.D.
 B8574 Apamea (Phrygia). Nab.
 04500 Apta, Hierapytna, Priamaos. Cretan tree-worship.
 B8598 Atalla, A. Ocean legend (four ounces, two ounces, one ounce). Roman sextans.
 04528 Athens, early Dekadrachm.
 04580 " i. A. tetradrachm, 175 B.C., magistracy of Antiochos IV. ii. A. stater, 87/6 B.C., magistracy of Mithradates the Great.
 B8573 Caesarea (Cappadocia). Mt. Argæus.
 B8596 Capua, A. Ocean legend (Nemesis ?), two ounces.
 B8597 " A. Ocean legend (two ounces, one ounce, etc.).
 B8599 Carthaginian, A, E, struck in S. Italy. Capua (?), A. Roman uncia.
 04558 Catania and Lentini, Apollo types.
 04557 Cnossus, Minotaur and Theseus. (B.M.C. *Crete*, pl. iv. 8).
 04545 " and Gortyna, Minos.
 04579 Cos, tetradrachm, one with head of Mausolus, 337-3 B.C. Iuset, bust of Mausolus (*Anatolian Studies*, p. 207).
 B8569 Provincial silver: Cyprus and Tarsos.
 04581 Cysicus alluvial coin in anti Spartan league 389/7 B.C. (*Nism. Chron.* 1928, p. 10 No. 30).
 04587 Cysicus, head of 'Timotheus'.
 04569 Eleutherna, Hyrtakina, Tylosa. Cretan Apollo.
 04540 Ephesus. Archaia.
 04568 Etna. Catania.
 B8576 Flavia Neapolis: culta.
 04526 Gela, A river bull (5th cent.).

- B8578 **Totapianus, Laelianus, Marins.**
 B8580 **Justinian**, gold medallion.
 B8582 **Licinius I, Maxentius, Constantius II** facing head.
 C4529 **Lyimachus, N.** Types of Alexander and Lyimachus.
 B8591 **C. Malleolus, L. Piso Frugi** (B.M.C. pl. 96^s and 33^s, 4, 5, 6^s).
 C4571 **Mausollus**, profile view of head of B.M. statue : inset, coin of Dos with Mausollus as Heracles.
 B8586 **Maximinus II Daza**, uniform coinage of various mints.
 B8580 **Nero** : sestertius *lanum clusit*.
 C4578 **Orophernes** of Cappadocia. AR, tetradrachm struck at Priene (B.M.C. *Galatia*, p. 34, No. 1).
 C4530 **Orophernes, H.** s.c. 158/7.
 C4570 **Philip II** of Macedon, A' and B.
 C4559 **Philip V** and **Perseus**, of Macedon.
 C4544 **Philip Philadelphus** on coin of Antioch, and Roman imitation.
 B8592 **L. Piso Frugi**, denarii (obverse) and quinarius (B.M.C. pl. 33^s, 35^s).
 C4543 **Ptolemy I**, stages of his coinage.
 C4556 **Seleucus I**, Alexandrine types.
 B8581 **Sept. Severus**, Donna and two sons.
 B8589 **D. Silanus, C. Malleolus** (B.M.C. pl. 32¹⁴, 96^s, 7).
 C4553 **Sophytes** and **Andragoras**.
 C4574 **Tachos, A'** and **Athaus H.**
 C4575 " and **Athaus H** (*Nouv. Chron.* 1926, p. 130, No. 23).
 B8370 **Tiberius** and **Domitius Domitianus**, Alexandrian billon.
 B8563 **Valens** medallions (Vienna).
 B8587. **L. Valerius Aciscidor** (B.M.C. pl. 53^s, 4, 10).
 B8593 **C. Vibius Pansa, C. Marcus Censorinus, M'. Fontains, L. Julius Borsio**, unnamed of 84 a.c. (B.M.C. 36¹¹, 18, 37¹², 38¹¹, 12, 39¹³).

- B8567 **Artemis Ephesia** at **Siratonikoia**, Ephesos, Kilbanoi, Hierapolis.
 C4547 **Cistophoros**, development of.

Gems.

- C4561 Gem : portrait of a bearded man, by **Daxamenes** (Lewis House, Cat. No. 50).
 C4534 Gem : portrait of man wearing *lex* (Lewis House, Cat. No. 27).

Minor Arts.

- C4491 Bone heads probably of **Orithia** (*Artemis Orithia*, pl. 117).
 C4492 Ivory couchant animals (*Artemis Orithia*, pl. 149).
 C4493 Bone flutes and other objects (*Artemis Orithia*, pl. 162).
 C4743 Large gold fibula from the **Regolini Galassi** tomb near Caere, 7th cent. B.C. (Rostovtsoff, *Rome*, pl. 2, 1).
 C4627 Scythian gold repoussé stag from **Zöldhaskompusta**.

Romano-British Antiquities.

- B5141 A Roman country house sketch from a Pompeian wall painting.
 B5142 Roman hypocaust system : diagrammatic reconstruction.
 B5136 Elaborately decorated bronze swords and scabbards, including the specimen from **Bugthorpe**, Yorks.
 B1469 Iron sword and bronze-plated scabbard from **Thames**.
 B1470 Bronze shield-centre with scenes and owner's name from **River Tyne**.
 B5114 Bronze helmets from the **Marne** district and **England**. Bronze helmet found in **Thames** at **Waterloo Bridge**.
 B1471 Roman bronze helmets. **Herts** and **Yorks**.
 B5051 Iron currency bars. **South England**. (B.M. *Guide to Early Iron Age*, fig. 145.)
 C4630 Cambridge performance of **Prometheus**. The chorus.

SETS OF SLIDES.

The main collection of some 7000 lantern slides can be drawn on in any quantity, large or small, for lecturing on practically any branch of classical archaeology. For those who have opportunity, no method is so satisfactory as to come in person to the Library, and choose the slides from the pictures there arranged in a subject order.

But the following sets of slides, complete with texts, will be found useful to those lecturers who have not facilities for choosing their own slides. The thanks of the Society are accorded those who have been at the pains of undertaking this not easy task of telling a plain tale on the subjects with which they are most familiar to a general audience.

Suitable handbooks dealing with the different subjects can also be lent from the library to lecturers in advance of their lectures.

LIST OF SETS.

- The Prehellenic Age (no text).
- The Geography of Greece (A. J. Toynbee).
- Ancient Athens: historical sketch (S. Casson).
- Ancient Athens: topographical (annotated list of slides only, D. Brooks).
- Ancient Architecture (D. S. Robertson).
- Greek Sculpture (J. Penoyre).
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- Greek Vases (M. A. B. Brannholtz).
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- Some Coins of Sicily (G. F. Hill).
- Greek Papyri (H. I. Bell).
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- Life in the Roman World (H. H. Symonds).
- Rome (H. M. Last).
- The Roman Forum (G. H. Hallam).
- The Roman Forum, for advanced students (T. Ashby).
- The Palatine and Capitol (T. Ashby).
- The Via Appia (R. Gardner).
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- Roman Portraiture (Mrs. S. Arthur Strong).
- The Roman Soldier (H. H. Symonds).
- Horace (G. H. Hallam).
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- Roman Britain (Mortimer Wheeler).
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- The Antiquities of Malta (N. S. Chetani).

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NOTICE TO CONTRIBUTORS.

THE Council of the Hellenic Society having decided that it is desirable for a common system of transliteration of Greek words to be adopted in the *Journal of Hellenic Studies*, the following scheme has been drawn up by the Acting Editorial Committee in conjunction with the Consultative Editorial Committee, and has received the approval of the Council.

In consideration of the literary traditions of English scholarship, the scheme is of the nature of a compromise, and in most cases considerable latitude of usage is to be allowed.

(1) All Greek proper names should be transliterated into the Latin alphabet according to the practice of educated Romans of the Augustan age. Thus α should be represented by *c*, the vowels and diphthongs, *υ*, *αι*, *οι*, *ου* by *y*, *ae*, *oe*, and *u* respectively, final *-ος* and *-ου* by *-us* and *-um*, and *-πος* by *-er*.

But in the case of the diphthong *ει*, it is felt that *ei* is more suitable than *e* or *i*, although in names like *Laodicea*, *Alexandria*, where they are consecrated by usage, *e* or *i* should be preserved; also words ending in *-ειν* must be represented by *-eum*.

A certain amount of discretion must be allowed in using the *o* terminations, especially where the Latin usage itself varies or prefers the *o* form, as *Delos*. Similarly Latin usage should be followed as far as possible in *-e* and *-a* terminations, e.g., *Prione*, *Smyrna*. In some of the more obscure names ending in *-πος*, as *Αλκυπος*, *-er* should be avoided, as likely to lead to confusion. The Greek form *-ων* is to be preferred to *-o* for names like *Dion*, *Hieron*, except in a name so common as *Apollo*, where it would be pedantic.

Names which have acquired a definite English form, such as *Corinth*, *Athens*, should of course not be otherwise represented. It is hardly necessary to point out that forms like *Hercules*, *Mercury*, *Minerva*, should not be used for *Heracles*, *Hermes*, and *Athena*.

(2) Although names of the gods should be transliterated in the same way as other proper names, names of personifications and epithets such as *Nike*, *Homonoia*, *Hyakinthios*, should fall under § 4.

(3) In no case should accents, especially the circumflex, be written over vowels to show quantity.

(4) In the case of Greek words other than proper names, used as names of personifications or technical terms, the Greek form should be transliterated letter for letter, *k* being used for *κ*, *ch* for *χ*, but *y* and *u* being substituted for *υ* and *ου*, which are misleading in English, e.g., *Nike*, *apoxyomenos*, *diakumenos*, *rhyton*.

This rule should not be rigidly enforced in the case of Greek words in common English use, such as *agis*, *symposium*. It is also necessary to preserve the use of *ou* for *ου* in a certain number of words in which it has become almost universal, such as *boule*, *gerousia*.

(5) The Acting Editorial Committee are authorised to correct all MSS. and proofs in accordance with this scheme, except in the case of a special protest from a contributor. All contributors, therefore, who object on principle to the system approved by the Council, are requested to inform the Editors of the fact when forwarding contributions to the Journal.

In addition to the above system of transliteration, contributors to the *Journal of Hellenic Studies* are requested, so far as possible, to adhere to the following conventions:—

Quotations from Ancient and Modern Authorities.

Names of authors should not be underlined; titles of books, articles, periodicals or other collective publications should be underlined (for italics). If the title of an article is quoted as well as the publication in which it is contained, the latter should be bracketed. Thus:

Six, *Jahrb.* xviii. 1903, p. 34,

or—

Six, *Prolegomena* (*Jahrb.* xviii. 1903), p. 34.

But as a rule the shorter form of citation is to be preferred.

The number of the edition, when necessary, should be indicated by a small figure above the line; e.g. *Dittenb. Syll.*² 123.

Titles of Periodical and Collective Publications.

The following abbreviations are suggested, as already in more or less general use. In other cases, no abbreviation which is not readily identified should be employed.

- A. E. M.* = Archäologisch-epigraphische Mittheilungen.
Ann. d. I. = Annali dell' Instituto.
Arch. Anz. = Archäologischer Anzeiger (Beiblatt zum Jahrbuch).
Arch. Zeit. = Archäologische Zeitung.
Atk. Mitt. = Mittheilungen des Deutschen Arch. Inst., Athenische Abtheilung.
Baumeister = Baumeister, Denkmäler des klassischen Alterthums.
B. C. H. = Bulletin de Correspondance Hellénique.
Berl. Vas. = Furtwängler, Beschreibung der Vasensammlung zu Berlin.
B. M. Bronzes = British Museum Catalogue of Bronzes.
B. M. C. = British Museum Catalogue of Greek Coins.
B. M. Inscr. = Greek Inscriptions in the British Museum.
B. M. Vases = British Museum Catalogue of Vases, 1893, etc.
B. S. A. = Annual of the British School at Athens.
Bull. d. I. = Bollettino dell' Instituto.
C. I. G. = Corpus Inscriptionum Graecarum.
C. I. L. = Corpus Inscriptionum Latinarum.
Cl. Rev. = Classical Review.
C. R. Acad. Inscr. = Comptes Rendus de l'Académie des Inscriptions.
Dar.-Sagl. = Daremberg-Saglio, Dictionnaire des Antiquités.
Dittenb. Syll. = Dittenberger, Sylloge Inscriptionum Graecarum.
Ep. 'Apx. = Ἐφημερίς Ἀρχαιολογική.
G. D. I. = Gollitz, Sammlung der Griechischen Dialekt-Inschriften.
Gerh. A. V. = Gerhard, Ausgewählte Vasenbilder.
G. G. A. = Göttingische Gelehrte Anzeigen.
I. G. = Inscriptiones Graecae.¹
I. G. A. = Röhl, Inscriptiones Graecae antiquissimae.
Jahrb. = Jahrbuch des Deutschen Archäologischen Instituts.
Jahrbuch. = Jahreshefte des Oesterreichischen Archäologischen Institutes.
J. H. S. = Journal of Hellenic Studies.
Le Bas-Wadd. = Le Bas-Waddington, Voyage Archéologique.
Michel = Michel, Recueil d'Inscriptions grecques.
Mon. d. I. = Monumenti dell' Instituto.
Müller-Wies. = Müller-Wisseler, Denkmäler der alten Kunst.
Mus. Marbles = Collection of Ancient Marbles in the British Museum.
Neue Jahrb. kl. Alt. = Neue Jahrbücher für das klassische Altertum.
Neue Jahrb. Phil. = Neue Jahrbücher für Philologie.

¹ The attention of contributors is called to the fact that the titles of the volumes of the second issue of the Corpus of Greek Inscriptions, published by the Prussian Academy, have now been changed, as follows:—

- | | | | |
|--------------|------|---|---|
| <i>I. G.</i> | I. | = | Inscr. Atticae anno Euclidis vetustiores. |
| " | II. | = | " " aetatis quae est inter Eucl. ann. et Augusti tempora. |
| " | III. | = | " " aetatis Romanae. |
| " | IV. | = | Argolidia. |
| " | VII. | = | Megaridis et Boeotiae. |
| " | IX. | = | Graeciae Septentrionalis. |
| " | XII. | = | insul. Maris Aegaei praeter Delum. |
| " | XIV. | = | Italiae et Siciliae. |

Num. Chr. = Numismatische Chronicle.

Num. Zeit. = Numismatische Zeitschrift.

Pauly-Wissowa = Pauly-Wissowa, Real-Encyclopädie der classischen Altertumswissenschaft.

Philol. = Philologus.

Rev. Arch. = Revue Archéologique.

Rev. Et. Gr. = Revue des Études Grecques.

Rev. Num. = Revue Numismatique.

Rev. Philol. = Revue de Philologie.

Rh. Mus. = Rheinisches Museum.

Röm. Mitt. = Mittheilungen des Deutschen Archäologischen Instituts, Römische Abtheilung.

Roscher = Roscher, Lexicon der Mythologie.

T.A.M. = Tituli Asiae Minoris.

Z. f. N. = Zeitschrift für Numismatik.

Transliteration of Inscriptions.

- [] Square brackets to indicate additions, i.e. a lacuna filled by conjecture.
- () Curved brackets to indicate alterations, i.e. (1) the resolution of an abbreviation or symbol; (2) letters misrepresented by the engraver; (3) letters wrongly omitted by the engraver; (4) mistakes of the copyist.
- < > Angular brackets to indicate omissions, i.e. to enclose superfluous letters appearing on the original.
- . . . Dots to represent an unfilled lacuna when the exact number of missing letters is known.
- - - Dashes for the same purpose, when the number of missing letters is not known.

Uncertain letters should have dots under them.

Where the original has iota adscript, it should be reproduced in that form; otherwise it should be supplied as subscript.

The aspirate, if it appears in the original, should be represented by a special sign, ῑ.

Quotations from MSS. and Literary Texts.

The same conventions should be employed for this purpose as for inscriptions, with the following important exceptions:—

- () Curved brackets to indicate only the resolution of an abbreviation or symbol.
- [] Double square brackets to enclose superfluous letters appearing on the original.
- < > Angular brackets to enclose letters supplying an omission in the original.

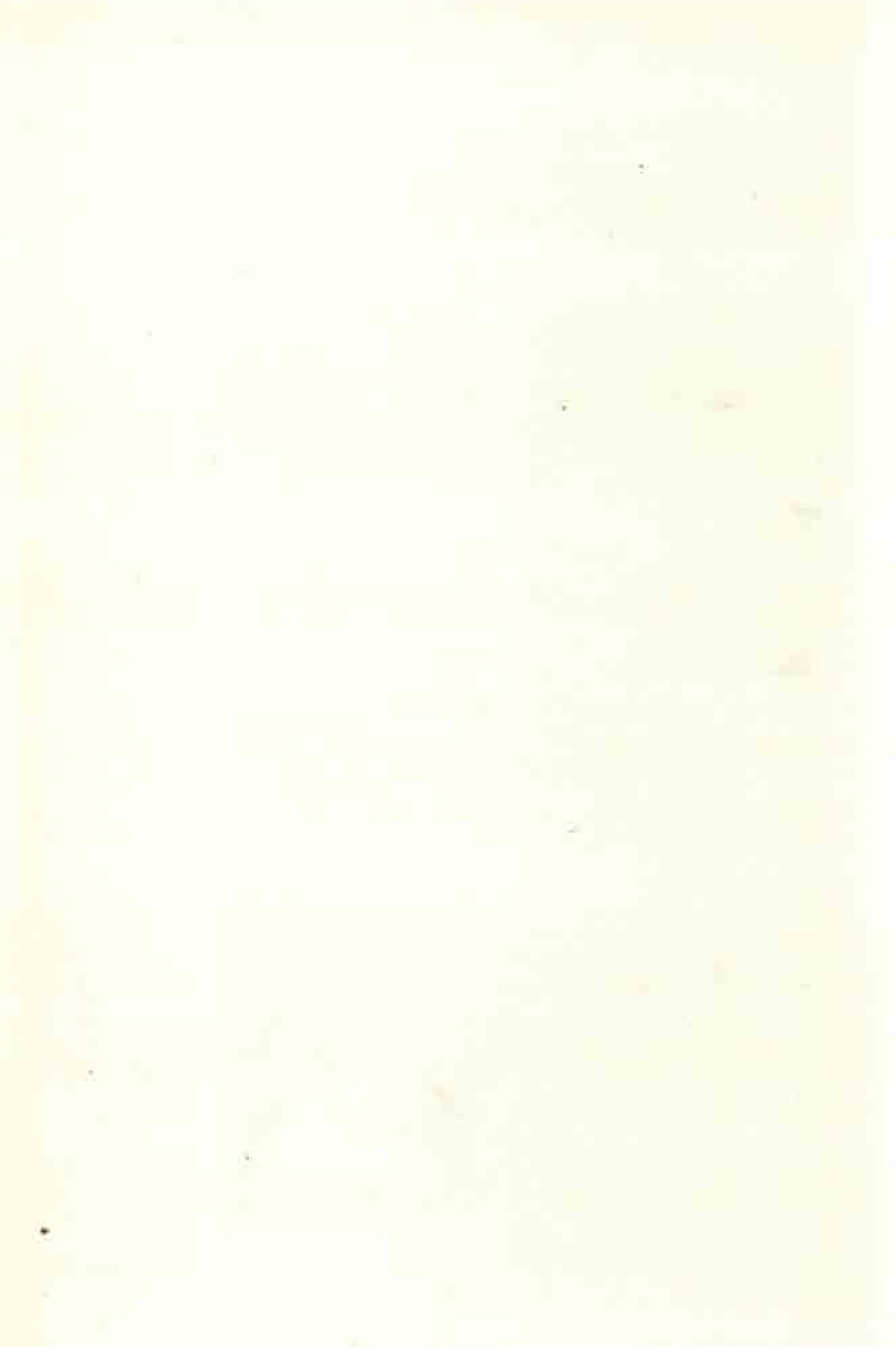
The Editors desire to impress upon contributors the necessity of clearly and accurately indicating accents and breathings, as the neglect of this precaution adds very considerably to the cost of production of the *Journal*.



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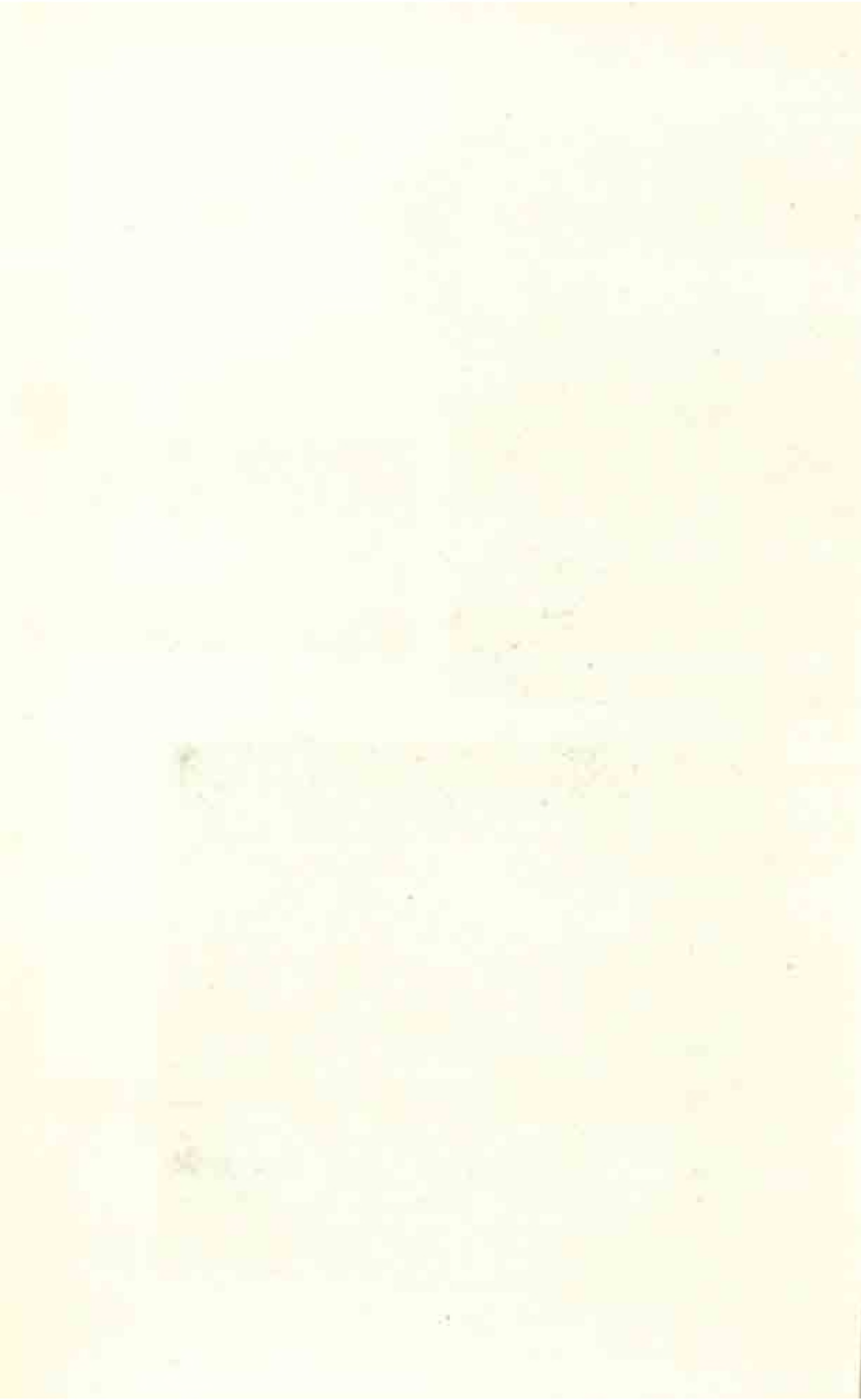


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